City of Westminster.

BUCKINGHAM PALACE ROAD LENDING LIBRARY.

Only Borrowers or responsible messengers admitted to the shelves. Books will not be entrusted to messengers considered unfit to take proper care of them.

Hours. Weekdays, 10 a.m. to 8 p.m., except Wednesdays (10 a.m. to 2 p.m.). Entrance barrier shut five minutes before closing time. Closed on Sundays and public holidays.

Fifteen days (including days of issue and return) allowed for reading this book. Fine of one half-penny per day or portion of a day if detained longer. Books cannot be exchanged on day of issue.

Renewals. Any book (except a work of fiction) may, on presentation at the Library, be re-borrowed for a further period of fifteen days, unless required by another reader. Books cannot be renewed by post.

Care of books. Books must be kept clean, and protected from wet weather. Leaves must not be turned down, nor pencil or other marks made thereon. Any damage done to books will be charged to the last borrower. Books selected should therefore be examined by borrowers and attention called to any damage before leaving the Library.

Change of residence, either of borrowers or their guarantors, must be notified immediately

d as soon as possible. Borrowers are respon-
on their tickets, which are not transferable.

in wet weather, **umbrellas** must be left with

s must be returned on or before the THIRD
CH YEAR, as the Lending Library is then
ock. In default of such return a fine of **one**

Reserve Stock

MSC.
COOKE, J.
kenan's Handbook of
ish Antiquities

Infectious disease. IF INFECTIOUS DISEASE SHOULD BREAK OUT IN YOUR HOUSE DO NOT RETURN THIS BOOK, BUT AT ONCE INFORM THE LIBRARIAN. PENALTY FOR INFRINGEMENT OF THIS REGULATION, OR FOR KNOWINGLY PERMITTING THE BOOK TO BE EXPOSED TO INFECTION, £5.

LONDON BOROUGH OF LEWISHAM
LIBRARY SERVICE

Author

Title

BOOK STORE

Books or discs must be returned on or before the last date stamped on label or on card in book pocket. Books or discs can be renewed by telephone, letter or personal call unless required by another reader. After library hours use the Ansafone Service (01-698 7347). For hours of opening and charges see notices at the above branch, but note that all lending departments close at 1 pm on Wednesday and all libraries are closed on Sundays, Good Friday, Christmas Day, Bank Holidays

METROPOLITAN SPECIAL COLLECTION

TRANSFERRED TO
Metropolitan Special Collections
LEWISHAM.

Knockmany Chamber (see p. 75).

941.501

WAKEMAN'S HANDBOOK OF IRISH ANTIQUITIES

THIRD EDITION

By JOHN COOKE, M.A. (Dub.),

FELLOW OF THE ROYAL SOCIETY OF ANTIQUARIES OF IRELAND;
EDITOR OF 'MURRAY'S HANDBOOK FOR IRELAND.'

DUBLIN:
HODGES, FIGGIS, & CO., Ltd.
LONDON: JOHN MURRAY, ALBEMARLE STREET.
MCMIII.

4

941.501 W5

000.32

3850 H

B 17253

Printed by PONSONBY & GIBBS, *University Press, Dublin.*

TRANSFERRED TO

Metropolitan Special Collections

LE

PREFACE.

It was not without hesitation that I undertook, at the request of the proprietors and publishers, the task of revising the previous edition of this work. To enter upon the wide field of Irish archæology I thought no easy task; but it was all the more difficult, to my mind, from a sense of the qualifications required for revising the work of one who was an acknowledged authority on the subject. Every student of Irish archæology is well aware of the extent of the valuable contributions, by pen and pencil, of the late Mr. W. F. Wakeman to our knowledge of that subject, to the study of which he devoted the whole of his long life. That his 'Handbook' so quickly grew out of date, and that a revision was thus rendered necessary, is due, partly to the results of the stimulus

given to the students of the present generation by the school of archæology to which he belonged; but more especially to the work of British and European archæologists, and the general application of the comparative method of treatment to the whole field of archæological science.

I found on entering on the work of revision that the book required much in the way of recension, but still more in the way of addition. While adhering to the general plan and spirit of the book, and retaining as much as possible of Mr. Wakeman's work, I have made changes in the arrangement which I thought advisable, and enlarged the scope of the book, so that, as far as possible, it might cover the whole of Ireland. The greater portion of the book has, in consequence, been largely re-written and expanded throughout; and the chapters on Burial Customs and Ogam Stones, Stone Forts, Lake-dwellings, Stone and Bronze Ages, Early Christian Art, are practically new. I have tried, as far as the limits of such a work would permit, to bring the book into line with recent research at home and abroad. The chapter on Raths and Stone Forts was written before the publication of Mr. T. J. Westropp's valuable work on the *Ancient Forts of*

Ireland; and it was satisfactory to me to find that in such general conclusions as, in the present stage of our knowledge, it is possible to arrive at, I was substantially in agreement with him.

It has been too much the custom in the past to look upon Ireland as being especially favoured with a wealth of antiquities, Pagan and Christian, more or less indigenous to the soil, and independent of the successive waves of influences sweeping from the Mediterranean littoral, and from Central Europe, ever westward and northward. Light can be thrown on problems still unsolved only by following the more scientific method of inquiry pursued, and by applying to them the knowledge gained in the wider field of European research.

Much yet requires to be done in the way of scientific exploration in Ireland; research work to be of any real value should be carried on only under expert supervision. That so much has been accomplished in the past is creditable to individual enterprise; but the time has surely come, with such examples before us abroad, that all further and extended investigation should be conducted under the superintendence of some recognised archæological authority. An Archæological

Department is much needed in Ireland; and valuable scientific work of the kind in question should no longer be left to the haphazard enterprise of the amateur, however laudable that enterprise might be. Still more is it necessary that some check should be put on such mischievous undertakings as the exploration of Tara Hill by those absolutely unskilled in archæological work, and for the fanciful object, too, of discovering the 'Ark of the Covenant'! Such 'Remains' as Tara are a national possession, a great trust from the past; and the sense of enlightened public opinion should make itself felt, in demanding such a protective measure as would ensure that the passing custodians, for their own day, of all like antiquities should not be allowed to injure them with impunity.

Over sixty new illustrations have been added to the present edition of this book. I am especially indebted to the Council of the Royal Irish Academy for the use of a large number of illustrations in the chapters on the Stone and Bronze Ages, Burial Customs, and Lake-dwellings; to the Council of the Royal Society of Antiquaries of Ireland, for permission to use and reproduce several illustrations and plans; to Colonel Wood-Martin, for the use of

illustrations from his several works on Irish Archæology; to Mr. John Murray, for the illustration and plans of Newgrange; to Mr. Edward Stanford, for permission to use the plan of Tara from my edition of *Murray's Handbook for Ireland*; to the Secretary and Board of Education (England), for the illustration of Monasterboice High Cross; to them and to Dr. Joyce, for the illustrations of the Chalice of Ardagh, the Cross of Cong, and Tara Brooch; and to the Rev. Maxwell Close, for details as to the measurements of several of the cromlechs and weights of the covering stones; also for the photograph from which the block of Kernanstown cromlech has been prepared. Some of the plans, and the illustrations of the Clonmacnoise Crosses (taken from Petrie's *Christian Inscriptions*), are the work of Miss Ivy H. Cooke; the wood-blocks from these have been prepared by Mrs. Watson. To my friend Mr. S. A. O. Fitz Patrick I am again indebted for his great kindness in reading the proof-sheets of this book.

It is hoped that it will supply the want felt by many interested in Irish archæology—an interest evidenced by the maintenance of their usual high standard, in the publications of the Royal Irish

Academy and the Royal Society of Antiquaries, and by the foundation in recent years of five provincial Archæological Societies, whose excellent publications deal more especially with their several fields of research. My indebtedness to the publications of the two former Bodies is apparent by references in the footnotes.

For the sake of convenience of reference, I have referred throughout to the publications of the Kilkenny Archæological Society, later the Royal Historical and Archæological Association, and now the Royal Society of Antiquaries, under the last-named title, giving the year in each instance. An Index to the whole series of their *Journal* has just been completed by the Society.

JOHN COOKE.

66, Morehampton Road, Dublin,
January, 1903.

CONTENTS

PAGE

PREFACE, ... v

CHAPTER I.

STONE MONUMENTS, ... 1

CHAPTER II.

STONE MONUMENTS—*continued*, ... 48

CHAPTER III.

STONE MONUMENTS—*continued*, ... 80

CHAPTER IV.

STONE MONUMENTS—*continued*, ... 108

CHAPTER V.

BURIAL CUSTOMS: OGAM STONES, ... 132

CHAPTER VI.

RATHS AND STONE FORTS, ... 159

CHAPTER VII.

THE STONE AGE, ... 187

CHAPTER VIII.

PAGE

The Bronze Age, ... 202

CHAPTER IX.

Lake-dwellings, ... 251

CHAPTER X.

Oratories: Early Churches, ... 277

CHAPTER XI.

Early Decorated Churches, ... 308

CHAPTER XII.

Crosses, ... 319

CHAPTER XIII.

Round Towers, ... 333

CHAPTER XIV.

Early Christian Art: Metal Work, ... 345

CHAPTER XV.

Abbeys and Later Churches: Fonts, ... 362

CHAPTER XVI.

Castles, ... 383

CHAPTER XVII.

Town Gates and Walls: Bridges, ... 396

LIST OF ILLUSTRATIONS

FIG.		PAGE
	KNOCKMANY CHAMBER (*see* p. 75),	*Frontispiece*
1	PILLAR-STONE AT TARA,	9
2	PILLAR-STONE NEAR NEWGRANGE,	12
3	'TOMB OF DATHI,' RATHCROGHAN,	14
4	HOLED-STONE AT TOBERNAVEAN, WOODVILLE, NEAR SLIGO,	18
5	HOLED-STONE AT MAINISTER, ARAN MÓR,	20
6	HOLED-STONE AT THE 'CHURCH OF THE MEN,' INISMURRAY,	21
7	ROCK-SCRIBINGS, MEVAGH, CO. DONEGAL,	28
8	SCRIBINGS ON SIDES OF KNOCKMORE CAVE, NEAR DERRY-GONNELLY, CO. FERMANAGH,	29
9	'SHIELD PATTERN' ROCK-SCULPTURE, FROM BROUGHSHANE, CO. ANTRIM,	31
10	'THE HAG'S CHAIR,' LOUGHCREW,	39
11	'DRUID'S JUDGMENT SEAT,' KILLINEY,	40
12	ANCIENT STONE, KILLINEY,	41
13	GRAIN-RUBBER,	44
14	POT-QUERN,	45
15	KERNANSTOWN CROMLECH, CARLOW,	57
16	LEGANANNY CROMLECH, CO. DOWN,	62
17	BALLYMASCANLAN CROMLECH,	63
18	SEPULCHRAL CHAMBER, PHŒNIX PARK,	64
19	CROMLECH IN HOWTH DEMESNE,	67
20	KILTERNAN CROMLECH,	68
21	MOUNT VENUS CROMLECH,	69
22	SHANGANAGH CROMLECH,	70
23	BRENNANSTOWN CROMLECH,	72
24	THE TUMULUS OF NEWGRANGE, CO. MEATH,	82
25	PLAN AND SECTION OF NEWGRANGE TUMULUS,	83

26 ENTRANCE TO THE PASSAGE LEADING TO THE GREAT CHAMBER, NEWGRANGE, ... 84
27 PLAN AND SECTION OF CHAMBER IN NEWGRANGE TUMULUS, . 85
28 CARVING ON A STONE AT THE WEST RECESS, ... 86
29 ORNAMENT ON THE ROOF OF THE EAST RECESS, ... 86
30 ORNAMENT ON THE ROOF OF THE EAST RECESS, ... 87
31 SCORING ON STONE IN WEST RECESS, ... 87
32 CARVED STONE IN EAST RECESS, ... 88
33 CARVED STONE IN EAST RECESS, ... 88
34 CARVED STONE ABOVE THE ENTRANCE, ... 89
35 TUMULUS OF DOWTH, FROM THE SOUTH, ... 92
36 ENTRANCE TO THE PASSAGE LEADING TO THE CHAMBER OF DOWTH, ... 94
37 CARVING ON A STONE AT DOWTH, ... 95
38 CARVING ON A STONE AT DOWTH, ... 95
39 ORNAMENTED BONE-FLAKE FROM SLIEVE-NA-CALLIAGHE, . 107
40 PLAN OF THE DEERPARK MONUMENT, CO. SLIGO, ... 109
41 CAIRN, ON CAIRN'S HILL, CO. SLIGO, ... 112
42 STONES OF THE CIRCLE AT NEWGRANGE, ... 123
43 REMAINS OF STONE CIRCLE NEAR DOWTH, ... 124
44 STONE CIRCLE, BALLYNOE, NEAR DOWNPATRICK, ... 126
45 STONE CIRCLE AT SLIEVE NA GREIDLE, CO. DOWN, . . . 127
46 BIRD'S-EYE VIEW OF CALLERNISH CIRCLE AND LINES, . . 130
47 CINERARY URN FROM ONE MAN'S CAIRN, NEAR MOYTURA, . 144
48 CINERARY URN FROM CO. CARLOW, ... 145
49 CINERARY URN, CO. WICKLOW, ... 146
50 CINERARY URN, CO. CAVAN, ... 146
51 URNS FROM CO. DOWN, ... 147
52 FOOD-VESSEL FROM CIST IN THE PHŒNIX PARK, DUBLIN, . 148
53 SMALL CINERARY URN, CO. CARLOW, ... 148
54 FOOD-VESSEL FROM GRAVE NEAR BALLYMOTE, CO. SLIGO, . 149
55 OGAM STONE (CO. KERRY) IN TRINITY COLLEGE, DUBLIN, . 152
56 OGAM STONE, MONATAGGART, CO. CORK, ... 154
57 PLAN OF SOUTERRAIN, GURTEEN RATH, NEAR MULLINGAR, . 164
58 PLAN OF TARA, ... 166
59 THE FORRADH, TARA, ... 167
60 RATH OF DOWNPATRICK, ... 170
61 STAIGUE FORT, CO. KERRY, ... 173
62 DUNAMOE FORT, CO. MAYO, ... 180

63 THE 'SCHOOL HOUSE' (BEE-HIVE HUT), INISMURRAY, . . 181
64 SECTION OF AN ORDINARY UNDERGROUND BEE-HIVE-SHAPED HUT, ... 182
65 SPEAR- OR JAVELIN-HEAD, ... 190
66 SPEAR-HEAD—SCALE, TWO-THIRDS, ... 190
67 LEAF-SHAPED ARROW-HEADS, ... 192
68 TRIANGULAR ARROW-HEADS—FIRST TYPE, ... 192
69 TRIANGULAR ARROW-HEADS—SECOND TYPE, . . . 193
70 VARIOUS TYPES OF STEMMED ARROW-HEADS, . . . 193
71 MOUNTED ARROW-HEAD, ... 194
72 FLINT KNIFE, ... 195
73 POLISHED CELT OF FELSTONE—SCALE, TWO-THIRDS, . . 197
74 VARIOUS TYPES OF STONE CELTS—SCALE, ONE-EIGHTH, . . 198
75 MOUNTED CELT, ... 198
76 SUPPOSED CHAMPION-STONE FOR CASTING, ... 199
77 PERFORATED AXE-HAMMERS OF STONE, ... 200
78 PERFORATED STONE AXE-HAMMERS, ... 201
79 FLAT BRONZE CELT, ... 207
80 CELT WITH LUNETTE-SHAPED EDGE AND RECURVED POINTS, . 207
81 FLAT AND FLANGED CELTS WITH STOP-RIDGES, . . . 208
82 WINGED OR FLANGED CELTS, ... 208
83 DOUBLE-LOOPED FLANGED CELT WITH STOP-RIDGE, . . 209
84 LOOPED CELT WITH ORIGINAL HANDLE, ... 209
85 VARIETIES OF LOOPED SOCKETED CELTS, ... 211
86 CELT MOULD, CO. LEITRIM, ... 212
87 CELT MOULD, CO. DOWN, ... 212
88 VARIETIES OF BRONZE SWORDS FOUND IN IRELAND, . . 214
89 DAGGER HAFTED WITH BRONZE, ... 216
90 UPPER AND LOWER PORTIONS OF SWORD-SHEATH OF BRONZE FROM LISNACROGHERA (NOW IN THE GRAINGER COLLECTION), ... 219
91 UPPER AND LOWER PORTIONS OF SWORD-SHEATH OF BRONZE FROM LISNACROGHERA (NOW IN THE BRITISH MUSEUM), . 220
92 UPPER AND LOWER PORTIONS OF SWORD-SHEATH OF BRONZE FROM LISNACROGHERA (NOW IN GRAINGER COLLECTION), 220
93 VARIETIES OF SPEAR-HEADS OF BRONZE, ... 223
94 ORNAMENTS ON SPEAR-HEADS, ... 225
95 BUTT MOUNTING OF CRANNOG SPEAR-SHAFT, ... 226
96 BRONZE SHIELD FROM LOUGH GUR, ... 228

97 BRONZE BRIDLE-BITS, ... 231
98 TRAPPINGS OF BRONZE, CALLED 'HEAD-STALLS,' FOUND WITH BRONZE BRIDLE-BITS, ... 232
99 BRONZE CALDRON, ACADEMY COLLECTION, ... 233
100 BRONZE DISH FROM CLOONFINLOUGH CRANNOG, CO. ROSCOMMON, 235
101 BRONZE TRUMPETS, ACADEMY COLLECTION, NATIONAL MUSEUM, 236
102 DISC AND PENANNULAR TYPES OF RING-PINS, ... 238
103 BRONZE FIBULA, ... 239
104 BRONZE HINGE-BROOCH, ... 239
105 BRONZE ARMLETS, ... 240
106 GOLD TORQUES, ROYAL IRISH ACADEMY COLLECTION, . . 244
107 GOLD LUNETTE, OR MIN, ROYAL IRISH ACADEMY COLLECTION, 246
108 GOLD TIARA, OR DIADEM, ROYAL IRISH ACADEMY COLLECTION, 247
109 GOLD FIBULA, TRINITY COLLEGE, DUBLIN, ... 248
110 LAKE-DWELLINGS IN LOUGH EYES, CO. FERMANAGH, . . . 253
111 BONE PINS, &c., FROM LAKE-DWELLINGS IN COUNTIES SLIGO, LEITRIM, AND ROSCOMMON, ... 260
112 GLASS BEADS FROM LAKE-DWELLINGS, ... 261
113 COMB FROM LAGORE LAKE-DWELLING, ... 261
114 COMB FROM BALLINDERRY LAKE-DWELLING, ... 261
115 COMB (RESTORED) FROM ARDAKILLIN LAKE-DWELLING, . . 262
116 SECTION OF ARDAKILLIN LAKE-DWELLING, CO. ROSCOMMON, . 262
117 COOKING-VESSEL FROM LOUGH EYES, CO. FERMANAGH, . . 273
118 HORN DRINKING-CUP, ... 274
119 WOODEN METHER, OR DRINKING-CUP, ... 274
120 'DUG-OUTS,' OR CANOES, ... 275
121 CLOCHAUN NA CARRIAGE, ARAN ISLAND, ... 278
122 PLAN OF MONASTIC SETTLEMENT, SKELLIG MICHAEL, . . 280
123 THE GREAT SKELLIG, OR SKELLIG MICHAEL, ... 281
124 BEE-HIVE CELLS, SKELLIG MICHAEL, ... 281
125 ORATORY OF KILMALKEDAR, ... 283
126 BEE-HIVE HOUSE, ON BISHOP'S ISLAND, NEAR KILKEE, . . 284
127 ST. SENAN'S ORATORY, ON BISHOP'S ISLAND, NEAR KILKEE, . 285
128 PLAN OF CASHEL AND MONASTIC SETTLEMENT, INISMURRAY, . 287
129 DOORWAY, CHURCH OF ST. COLMAN MAC DUACH, ARAN ISLAND, 289
130 WINDOW, TEAMPULL CEANANNACH, OR KILCANANAGH, ARAN, 290
131 WINDOW, TERMONCRONAN, CO. CLARE, ... 291
132 CHANCEL ARCH OF THE OLD CHURCH OF KILLINEY, CO. DUBLIN, 293
133 DOORWAY IN KILLINEY CHURCH, CO. DUBLIN, ... 294

134 POINTED DOORWAY IN KILLINEY CHURCH, ... 294
135 ST. MAC DARA'S CHURCH, ... 296
136 DOORWAY OF THE CHURCH OF OUR LADY, GLENDALOUGH, . 299
137 CHANCEL ARCH, TRINITY CHURCH, GLENDALOUGH, . . 302
138 ST. COLUMBA'S HOUSE AT KELLS, CO. MEATH, . . . 305
139 WINDOW IN ST. COLUMBA'S HOUSE (FROM THE INTERIOR), . 306
140 CAPITALS AT KILLESHIN, ... 311
141 CAPITALS AT KILLESHIN, ... 311
142 WINDOW AT KILLESHIN, ... 312
143 THE ROCK OF CASHEL, ... 313
144 INTERIOR VIEW OF KING CORMAC'S CHAPEL, ... 314
145 DOORWAY AT FRESHFORD, CO. KILKENNY, ... 317
146 EARLY CROSSES ON SEPULCHRAL SLABS AT CLONMACNOISE, . 320
147 CROSS ON SLAB, CLONMACNOISE, ... 321
148 CROSS ON SLAB, CLONMACNOISE, ... 322
149 CROSS ON SLAB, CLONMACNOISE, ... 322
150 GREAT CROSS OF MONASTERBOICE, ... 324
151 ORNAMENT BENEATH ARM OF THE GREAT CROSS, MONASTERBOICE, ... 325
152 CROSS OF MUIREDACH, SOMETIMES CALLED THE SMALLER CROSS, MONASTERBOICE, ... 326
153 PORTION OF THE SCULPTURE ON THE CROSS OF MUIREDACH, . 327
154 BOSS OF THE THIRD CROSS, MONASTERBOICE, ... 329
155 INSCRIBED TOMBSTONE, INISCALTRA, ... 330
156 PLAN OF CEMETERY, KILNASAGGART, NEAR JONESBOROUGH, CO. ARMAGH, ... 331
157 DOORWAY, ROUND TOWER, GLENDALOUGH, ... 336
158 CROSS OVER THE DOORWAY OF ANTRIM TOWER, . . . 337
159 DOORWAY, DONAGHMORE TOWER, CO. MEATH, . . . 337
160 WINDOW, ROUND TOWER, CASHEL, ... 338
161 CLONDALKIN ROUND TOWER, ... 339
162 DOORWAY OF CLONDALKIN TOWER, ... 340
163 DOORWAY OF KILDARE TOWER, ... 342
164 ROUND TOWER, DEVENISH, ... 343
165 BELL OF CHUMASCACH MAC AILELLO, ... 348
166 THE CROSS OF CONG, ... 354
167 CHALICE OF ARDAGH, ... 357
168 THE TARA BROOCH, ... 360
169 NEWTOWNTRIM ABBEY, CO. MEATH, ... 367

170 BECTIVE ABBEY, NEAR TRIM, CO. MEATH, ... 369
171 CHOIR ARCH OF CANNISTOWN CHURCH, ... 371
172 ST. DOULOUGH'S CHURCH, CO. DUBLIN, ... 373
173 ST. DOULOUGH'S WELL, ... 375
174 KILCARN FONT, CO. MEATH, ... 380
175 KILCARN FONT—NO. 1, ... 381
176 KILCARN FONT—NO. 2, ... 381
177 KILCARN FONT—NO. 3, ... 382
178 KILCARN FONT—NO. 4, ... 382
179 MALAHIDE CASTLE, CO. DUBLIN, ... 385
180 CASTLE OF TRIM, CO. MEATH, ... 387
181 SCURLOUGHSTOWN CASTLE, ... 393
182 BULLOCK CASTLE, NEAR KINGSTOWN, CO. DUBLIN, . . . 394
183 ST. LAURENCE'S GATE, DROGHEDA, ... 397
184 THE WEST GATE, DROGHEDA, ... 398
185 THE 'SHEEP' GATE AND YELLOW STEEPLE, TRIM, CO. MEATH, 399

HANDBOOK OF IRISH ANTIQUITIES

CHAPTER I

STONE MONUMENTS.

INTRODUCTION—PILLAR-STONES—HOLED-STONES—ROCK SCRIBINGS AND CUP MARKINGS—ROCKING-STONES—DRUIDS' CHAIRS OR SEATS—BULLÁN-STONES.

IRELAND is, perhaps, more remarkable than any other country in the West of Europe for the number, the variety, and, it may be said, the *nationality* of its antiquarian remains. An archæologist upon arriving in Dublin will find, within ready access of that city, examples, many of them in a fine state of preservation, of almost every structure of archæological interest to be met with in any part of the kingdom. Sepulchral tumuli—several of which, in point of rude magnificence, are admitted to be unrivalled in Europe—cromlechs, pillar-stones, cairns, stone circles, and other remains of the earliest archæological periods in Ireland, lie within a journey of a couple of hours of the metropolis. The cromlechs of Howth, Kilternan, Shanganagh, Mount Venus, Hollypark, Shankill, and Brennanstown (Glen Druid) are within easy reach of the suburbs of Dublin.

The county has several round towers, and many churches of a very primitive type. An hour's journey by the Great Northern Railway to Drogheda, with a car drive of about twenty miles, affords not only an opportunity of seeing the great prehistoric remains of Newgrange, but of viewing at Monasterboice, amongst other remains, two crosses, which are amongst the finest in Christendom. In the National Museum, Dublin, will be found the Royal Irish Academy collection of weapons and implements of the New Stone and Bronze periods, gold ornaments, crannog remains, Ogam stones, and relics of early Christian Art, which, we think it is not too much to say, is one of the finest and most representative that any country in Europe can show.

Irish Antiquarian remains may be generally classified under three heads:—I. Prehistoric, embracing those which are considered to have existed previous to, or within a limited period after, the introduction of Christianity in the fifth century: II. The Early Christian: and III. The Anglo-Irish.

The Prehistoric remains consist of cromlechs, pillar-stones, cairns, stone circles, tumuli, raths, stone forts, beehive huts, rock-markings, weapons, &c. They are found in considerable numbers particularly in the more remote parts of the island, where they have been suffered to remain, many more or less unmolested, save by the hand of time.

Early Christian remains are very numerous, and consist of oratories, churches, round towers, Ogam stones, and crosses. Of the early churches of Ireland —structures of a period when the 'Scotish (Irish)

monkes in Ireland and Britaine highly excelled in their holinesse and learning, *yea, sent forth whole flockes of most devout men into all parts of Europe*'*—there are examples in a sufficient state of preservation to give a good idea of architecture, in what may be considered its second stage in Ireland.

The remains of what may be termed 'Anglo-Irish' structures were erected about the period of the English invasion, and although of Irish foundation, they appear generally to have been built upon Anglo-Norman or English models. The great barons who, in the time of Henry the Second, or of his immediate successors, received grants of land from the Crown, erected fortresses of considerable strength and extent, in order to preserve their possessions from the inroads of the native Irish, with whom they were usually at war. The castles of Howth, Malahide, Maynooth, Trim, Carlow, and many others, are silent witnesses to the fact that the early invaders were occasionally obliged to place some faith in the efficacy of strong walls and towers to resist the advances of their restless neighbours, who, for several centuries subsequent to the Invasion, were rather the levellers than the builders of castles. Of the massive square keep, so common in every part of the kingdom, but especially within the English Pale, the Dublin neighbourhood furnishes several examples. As, except in some minor details, they usually bear a great resemblance to each other, an inspection of one or two will afford a just idea of all. They were generally used as the residence of a chieftain, or as an outpost depen-

* Camden's *Hibernia*, p. 67.

dent upon some larger fortress in the neighbourhood. Many appear to have been erected by English settlers, and they are usually furnished with a bawn, or enclosure, into which cattle were driven at night, a precaution very significant of the times.

The abbeys, though frequently of considerable extent and magnificence, are in general more remarkable for the simple grandeur of their proportions. The finest exhibit many characteristics of Transition style; but Early Pointed is also found, and in great purity. There are in Ireland but few very notable examples of the succeeding styles. Decoration, indeed, was not so much desired as strength and security; and we do not require the testimony of the 'Irish Annals' to show that the church buildings had occasionally to stand upon their defence: the bartizans surmounting the doorways of some, and the crenellated walls of many, are sufficient evidence of this.

There are certain antiquities which cannot well be classed with the remains referred to in the three preceding headings. Many of the lake-dwellings, or crannogs, for instance, are believed, with good reason, to have been in use even in pagan times in Ireland; some of these artificial islets were used in mediæval times, and several are recorded to have been occupied as places of human habitation so late as the seventeenth century. It would, therefore, be hazardous to classify them with either pagan or Christian remains, and it is certain that they are not Anglo-Irish. A description of these will, however, be given in a subsequent chapter.

Pillar-stones or *Dallans* are found in many parts of Ireland, and particularly in districts where stone circles, cairns, and cromlechs occur. They are usually rough monoliths, and evidently owe their upright position, not to accident, but to the design and labour of a primitive people. They are usually called by the native Irish, 'Gallauns' or 'Leaghauns,' and in character they are precisely similar to the hoar-stone of England, the hare-stane of Scotland, the maen-qwyr of Wales, and the Continental menhir.

Many theories have been advanced with respect to their origin. They are variously supposed to have been idol-stones, to have been erected as landmarks, and as monumental stones recording the scene of a battle, or the spot upon which a warrior had fallen. The name 'cat-stone,' by which some examples are known in Scotland, would well warrant such an idea, the word 'cath' in the Gaelic language signifying a battle. At either end of the historic ford over the river Erne, at Ballyshannon, may be seen two remarkable examples—to that on the northern side other stones would seem to lead. This is a significant fact in favour of the landmark theory. At the same time, we learn from the later writers of the life and labours of St. Patrick in Ireland, that he found the people worshipping certain idols in the form of stone pillars, some of which he caused to be overthrown, while upon one purposely left standing he inscribed the name of Jesus. There can be little doubt that the saint and his immediate followers, in their horror of all that was idolatrous, destroyed a large number of the pillar-stones which had been venerated

and worshipped in pagan Ireland; but, nevertheless, a considerable number still remain. These, in some instances, would seem to have been consecrated to the Faith, and from having been idols were transformed into memorials of the triumph of Christianity. We are not without satisfactory evidence of such adaptation having been effected. Several, and apparently the oldest, lithic monuments may be observed rudely punched, not carved, with the figure of a primitive cross, accompanied by one or other of the inscriptions DNI, DNO, or DOM. Todd, in his *Life of St. Patrick*, has, we believe, conclusively shown the generally received idea of the sudden, and, it may be said, miraculous conversion of Ireland in the days of the saint, and in those of his immediate successors, to be wholly erroneous. Pagan practices and beliefs long remained, and to-day many myths, legends, and superstitions attest, as dying remnants, how deeply rooted were the 'elder faiths.'

The Pillar-stone is the simplest form of all memorials; it is found in other countries in connection with ancient burial mounds or barrows. Such memorials to a departed hero, chief, or monarch were not confined to savage peoples, for the custom has descended through all stages of civilization, and the commemorative use of the pillar-stone is frequent in biblical history. Ancient Egypt furnishes notable examples of monoliths such as Cleopatra's Needle; while the metropolis of Ireland, not to mention other cities, exhibits stupendous pillar monuments showing the 'hero-worship' of our forefathers, to the dead leaders Wellington and Nelson.

In several parts of the country the gallaun is still

considered by many of the people to be something weird, and, 'to be let alone.' The late E. A. Conwell, in his work on the supposed tomb of Ollamh Fodhla, points out that, about two miles north-west of Oldcastle, there is a townland called Fearan-na-gcloch (from *fearan*, land, and *cloch*, a stone), so called from two remarkable stone flags, still to be seen standing in it, popularly called Clocha labartha, the 'Speaking stones': and the green pasture-field in which they are situated is called Pairc-na-gclochalabartha, the 'Field of the speaking stones.'

'There can be little doubt,' he proceeds, 'the pagan rites of incantation and divination had been practised at these stones, as their very name, so curiously handed down to us, imports; for, in the traditions of the neighbourhood, it is even yet current that they have been consulted in cases where either man or beast was supposed to have been "overlooked"; that they were infallibly effective in curing the consequences of the "evil eye"; and that they were deemed to be unerring in naming the individual through whom these evil consequences came. Even up to a period not very remote, when anything happened to be lost or stolen, these stones were invariably consulted; and in cases where cattle, &c., had strayed away, the directions they gave for finding them were considered as certain to lead to the desired result. There was one peremptory inhibition, however, to be scrupulously observed in consulting these stones, viz. that they were *never* to be asked to give the same information a second time, as they, under no circumstances whatever, would repeat an answer.'

These conditions having, about seventy or eighty years ago, been violated by an ignorant inquirer who came from a distance, the 'speaking stones' became dumb, and have so remained ever since. There were originally four of these stones: of the two that remain, the larger may be described as consisting of a thin slab of laminated sandy grit. Its dimensions are as follows: total height above ground, very nearly 7 feet: extreme breadth, 5 feet 8 inches; breadth near summit, 3 feet 6 inches; average thickness, about 8 inches. In no part does it exhibit the mark of a chisel or hammer. The height of the second remaining stone, above the present level of the ground, is 6 feet 4 inches: it is in breadth, at base, 3 feet 4 inches, and near the top 1 foot more; thickness at base, 14 inches. The material, unlike that found in the generality of such monuments, is blue limestone.

Perhaps the most noted example of the pillar-stone, as found in Ireland, occurs on the celebrated Hill of Tara, Co. Meath. This interesting monument at present occupies a position in the centre of the *Forradh*, one of the principal earthworks still remaining on that memorable site. The stone formerly stood upon, or rather by the side of, a small mound lying within the enclosure of Rath-na-Riagh, and called Dumha-na-nGiall, or the 'Mound of the hostages.' In 1824 it was placed in its present position, to mark the grave of some men who were slain in 1798 in an encounter with the king's troops. It was suggested by George Petrie that this pillar, or menhir, was no other than the celebrated *Lia Fail*, or 'Stone of Destiny,'

upon which, during many ages, the monarchs of Ireland were crowned, and which, according to the early bardic accounts, 'roared' beneath them at their inauguration. The Coronation Stone at Westminster was generally supposed to have been removed from Ireland to Scotland, in the beginning of the sixth century, for the coronation of Fergus Mac Earc, a prince of the blood-royal of Ireland, there having been a prophecy that in whatever country this famous stone was preserved, a king of the Scotic race should reign. In the MSS. to which Petrie refers, one of which is probably of the tenth century, the stone is mentioned as still existing at Tara; and 'it is,' he writes, 'an interesting fact, that a large obeliscal pillar-stone, in a prostrate position, occupied till a recent period the very situation on the hill pointed out as the place of the Lia Fail by the Irish writers of the tenth, eleventh, and twelfth centuries.' After remarking upon the want of agreement between the Irish and Scottish accounts of the history of the Lia Fail, and on the questionable character of the evidence upon which the story of its removal from Ireland rests, he further observes: 'That it is in the highest degree improbable, that, to gratify the desire of a colony, the Irish would have voluntarily parted with a monument

Pillar-stone at Tara.

so venerable for its antiquity, and deemed essential to the legitimate succession of their own kings.' We cannot here enter into a discussion of this question, in which numerous conflicting traditions are involved. The removal of the Coronation Stone from Tara to Scotland is now generally admitted. The use of the present pillar-stone at Tara for the purpose of inauguration has not been established: its very shape is strongly presumptive against any such theory, as the custom usually was for the king or chief to stand upon the stone. That the monument is an original relic, raised for some memorial use, may reasonably be accepted.

Some of our finest and perhaps oldest pillar-stones bear cup-and-circle markings, similar to those found upon the face of undisturbed rocks in various parts of Ireland, Britain, the European Continent, and other parts of the world. A very remarkable example occurs at Muff, about five miles from Londonderry. This stone, which stood 8 ft. in height, and measured 4 ft. 6 ins. across at the base, by 2 ft. 6 ins. in thickness, was on one of its faces covered with cup-and-circle markings, some of which exhibited the central channels which appear on the rock sculptures in Kerry. This was examined by the late Rev. James Graves, who wrote: 'Where the soil had covered the base, two of the cups, with their concentric circles, were very plain and unworn; but the water trickling from a hollow on the top of the stone, had injured some of those above. Excavations were made to a depth of four feet round its base, but no trace of interment, or relic of any kind, was discovered. Close to the stone was found a kind of bone earth, or

soil mixed with minute fragments of bone, apparently not human, but from their minute and decomposed state identification was impossible.'*

Mr. G. H. Kinahan, in pages of the *Journal* here referred to, figures and describes a remarkable pillar-stone which he found near Kilmacrenan, Co. Donegal. In this instance four of the cups are so arranged that the channels extending from them form a perfect cross of the Roman character.† Here the likeness to the Christian symbol cannot be considered other than accidental. A device, almost precisely similar, is found upon a rude stone monument in Scotland; and we know that upon the bases of some of the cinerary urns, formed of baked clay, discovered in cists in Ireland, and found to contain calcined human bones, flint arrow-heads, and bone implements, a cruciform ornament may be noticed. This, at least as so placed, cannot be considered a Christian symbol.

Several pillar-stones yet *in situ*, and a great many others overthrown or removed, present Ogam inscriptions, a subject that will be found treated of in a subsequent chapter. Immediately near Kesh, a station on the railway line between Enniskillen and Bundoran, occur a cairn, an earthen sepulchral mound, and a pillar-stone of great size. The latter, upon its south-western angle, bore a legend in Ogam characters, which some years ago, when an expert from the south was expected to come and examine it, was, by a local worthy, whose intentions were no doubt laudable, so scraped, cleaned, and 'improved,' that little trace of the inscription remained.

* *Journal* R. S. A. I., 1876–8, p. 294. † *Ibid.*, 1887–8, p. 432.

Of the ordinary plain gallaun, or pillar-stone, the annexed illustration, representing one of several remaining in the vicinity of the tumulus of Newgrange (hereafter to be noticed), will afford a good idea. It measures 10 feet in height, and in circumference 17. A similar monolith, in the village of Ballynacraig, *i. e.* 'Rock town,' to which it probably gave its name, about half a mile from Newgrange, measures 24 feet in girth, but its present height above ground is only about 6 feet. There are monuments of a similar class in the valley of Glenasmole, 'Valley of the thrushes,' beyond Rathfarnham, about five and a half miles from Dublin.

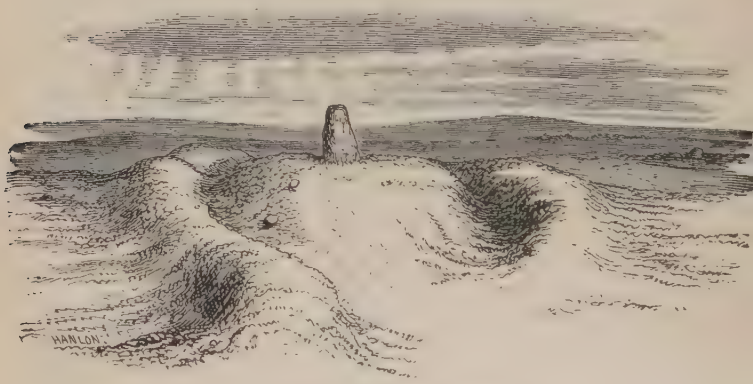
Pillar-stone near Newgrange.

Some of these remains, whether monuments, boundary stones, or idols, appear to have been known by particular names, as, for instance, a fine example standing, amongst a group of megalithic structures, in the sand-hills of Finner, a wild district lying towards the sea, between Ballyshannon and Bundoran. It is called 'Fleatuch,' and what that appellation means we have failed to ascertain. Nor were we more successful in a search after the significance of 'Eglone,' the name by which a boulder near Highwood, rising 18 feet in height, and measuring on two sides 7 feet 6 inches, and 11 feet 6 inches on the others, is known amongst the peasantry of Moytura, Co. Sligo. This massive monolith stands

perfectly upright, is rudely symmetrical in form, and has the appearance of a pillar-stone. It is in all probability by the agency of ice that this mass of grey magnesian limestone was torn from its natural bed and deposited as we now find it. No legendary tale concerning the 'Eglone' at present remains, but the stone, or rather rock, is regarded by many of the neighbouring people as possessed of mysterious attributes, of some kind or other, which they cannot explain: it may have been an idol. At a place called Keimaneigh, the fine mountain pass between Macroom and Bantry, is a true pillar-stone, which is supposed by natives of the locality to represent a woman who, for her numerous sins and scorn of repentance, had been thus petrified by St. Fiachna in the sixth century. The pillar, which is about 6 feet high, bears a rude resemblance to a female human figure; hence, no doubt, the origin of the legend.

Of the hundreds of pillar-stones remaining in Ireland the great majority are prehistoric. The date of one example, however, has been satisfactorily settled. Cruachan, or Rathcrogan, situated about five miles from Carrick-on-Shannon, consists of a stone ditch, circular in form, but greatly defaced. 'Within this,' writes George Petrie, 'are small circular mounds, which, when examined, are found to cover rude sepulchral chambers formed of stone, without cement of any kind, and containing unburnt bones.' Outside the rath, or enclosure, in the centre of a small tumulus, is a pillar, referred to in the following notice of it by Duald Mac Firbis: 'The body of Dathi was brought to Cruachan, and was interred at Relig-na-Riogh, where most of the kings of

the race of Heremon were buried, and where to this date the red pillar-stone remains on a stone monument over his grave, near Rath-Cruachan, to this time (1666).'* Dathi was the last pagan monarch of the Milesian race. He died in the beginning of the fifth century from the effects of lightning while leading his army on a continental raid. The scene of his death was in the neighbourhood of the Alps.



'Tomb of Dathi,' Rathcroghan.

Holed-stones.—Perforated stones, very similar to the ordinary pillar-stone, are found in many parts of Ireland, Scotland, France, and, as appears from Wilford's *Asiatic Researches*, in India. Abroad, as well as at home, their origin has been a matter of much speculation, and it is not likely that any definite solution can ever be arrived at. Colonel Wood-Martin, speaking on the subject, says:—'The original purpose for

* *Ecclesiastical Architecture of Ireland*, p. 107.

which the larger apertures were utilised seems to have been a literal as well as a symbolic means whereby an ailment, disease, or sin might be left behind or got rid of, also as a symbol by which a compact could be ratified, or an oath taken, by a well-known and public act. The postulants, at first, probably crawled through the orifice; then when it, through change in custom, became diminished in size, they probably passed a hand, or if a compact was to be made, clasped hands through it.'* Wilford† states that perforated stones are not uncommon in India, and devout people pass through them when the opening will admit, in order to be *regenerated*. If the hole be too small, they put the hand or foot through it, and with a sufficient degree of faith it answers nearly the same purpose.

In Ireland they are generally associated with prehistoric remains, and are occasionally found in connection with church buildings of the earliest type. It is probable that, dating from prehistoric ages, they were in time pressed, as it were, like the holy wells, into association with Christian rites. The following are some of the many places where holed-stones may be found in connection with our old churches: Kilmalkedar, Co. Kerry; Castledermot, Co. Kildare; Inismurray, Co. Sligo; Roscam, near Galway; Mainister, on Aran Mór, Co. Galway; Layde, Co. Antrim; Holy Island, Lough Derg; Glendalough; and on the Island of Devenish in Lough Erne, Co. Fermanagh.

We have perhaps lived beyond the age when legends referring to this class of monument were still generally

* *Pagan Ireland*, p. 308. † *Asiatic Researches*, vol. vi., p. 502.

current. The virtue of the Kilmalkedar stone was some fifty years ago equal in repute to that conceded to the Stennis example, and even, in some respects, superior; for, it was further firmly believed by many of the old inhabitants of Kerry, that persons afflicted with chronic rheumatism, 'falling sickness,' or some other ills, might, by passing three times round it (with faith, and by the offering of certain prayers), be restored to health. In the parish of Aghade, Co. Carlow, is a stone called Cloghafoyle, the 'Stone of the hole.' 'It projects in a semi-recumbent position 7 feet 6 inches above ground, is 5 feet 8 inches in width, 1 foot 6 inches in its thickest part, and is pierced—nearly equally distant from the sides and top—with a round hole 11½ inches in diameter. Formerly children were passed through this aperture, either as a cure for, or a preventive against, the malady called rickets.'* A similar custom, as Colonel Wood-Martin points out, was observed at St. Madron's well in Cornwall, Minchen Hampton in Gloucestershire, and Fyvie in Aberdeenshire.† A famous stone exists on Ardmore Strand, Co. Waterford, beneath which pilgrims on St. Declan's day (22nd Dec.) crawled on completing their devotions.

The most celebrated holed-stone in the British Isles is doubtless that of Stennis, near Kirkwall in Orkney. It has been rendered famous in his tale of *The Pirate*, by Sir Walter Scott. Fergusson, in his *Rude Stone Monuments*, says—'It is quite certain that the oath to Woden or Odin was sworn by persons joining their hands

* *Journal* Roy. Soc. of Antiq. Ir., 1888, p. 470.
† *Pagan Ireland*, p. 308.

through the hole in this ringstone, and that an oath so taken, although by Christians, was deemed solemn and binding' (page 255). This ceremony was held so very sacred that anyone breaking it was accounted infamous and a party to be shunned. In his *Journey to the Orkney Islands* (1781), Principal Gordon gives the following anecdote: 'The young man was called before the session, and the elders were particularly severe. Being asked by the minister the cause of so much severity, they answered, "You do not know what a bad man this is; he has broken the promise of Odin," and further explained that the contracting parties had joined hands through the hole in the stone.' All this does not serve to indicate the original character of the Stennis monument. That it was at one time sacred to Odin, or Woden, and reverenced by pagan northmen and their successors, perhaps for many generations, and that even Christians used the stone on certain solemn occasions, is no doubt interesting. The Scandinavian occupiers of Orkney may have, as it were, adopted a pillar-stone which they found associated with old-world customs and memories, dedicated it to Odin, and sealed their oaths upon it.

Few who have paid even passing attention to the subject of Irish antiquities, recognising the fact that several holed-stones, bearing apertures of considerable size, and found in the immediate neighbourhood of remains universally acknowledged to belong to prehistoric days, will assume, we think, that the former do not partake of the same primeval character as cromlechs, stone circles, and cairns. Fergusson was mistaken in stating

that there is no proof of a holed-stone being used in any Celtic cemetery for purposes similar to those practised at the Stennis example. Unquestionably some of the holed-stones are of doubtful character, inasmuch as they may be classified either as prehistoric, or

Holed-stone at Tobernavean, Woodville, near Sligo.

belonging to an early period of Christianity. We may perhaps assign to one of the finest monuments of this class remaining in Ireland a degree of antiquity equal at least to that acknowledged to be possessed by the cromlechs, circles, and other megaliths of Carrowmore,

immediately adjoining. Of this stone Colonel Wood-Martin, in *Rude Stone Monuments in Sligo*, gives the following description: 'It marks the point of junction of the three parishes of the district formerly, and still by the country people, designated Cuil-Irra. This boundary mark is a thin limestone flag, set on edge; it is 9 feet in height and 10 feet in breadth above ground. The little stream which issues from Tobernavean, or Tobar-na-bhFian, the "Well of the warriors," laves its base, which must be deeply buried in the earth. Toward the east side this flagstone is pierced by a squarish, or rather an oblong, perforation, 3 feet in length by 2 feet in breadth. From its mottled appearance this slab is popularly called Cloch-bhreac, or the "Speckled stone"; also Cloch-lia, or the "Gray stone"' (page 99).

Another example, standing upwards of five feet in height above the level of the ground, with a round hole sufficiently large to admit the hand, may be seen upon an eminence in the immediate vicinity of Doagh, a village in the county of Antrim. In the same district, on a hill near Cushendall, a second fine holed-stone until lately existed. Probably one of the most curious monuments of the class under notice, in Ireland, formerly stood in the early Christian cemetery of Inniskeen, close to the cloictheach, or round tower, Co. Monaghan. This relic, which was of porphyry, had an aperture through it sufficiently large to admit the insertion of a full-sized human arm. In modern times it was the custom at Easter to fix in the stone a pole, up which the neighbouring young people used to climb for a prize.

The stone is said to have been formerly used for superstitious purposes, but no particulars of the rites or customs once practised have been handed down.

The holed-stone of Castledermot is a very remarkable one, and the following particulars are from a description of it by Lord Walter FitzGerald: 'It stands at the head of a modern grave in the south-east side of the churchyard, and is known locally as the "swearing-stone." It is 3 feet long, 1 foot 2 inches wide, and $5\frac{1}{2}$ inches thick. The hole is at the junction of the arms of a ringed cross, and measures 5 inches in diameter. The cross, which is much worn, was mistaken by Vallancey for Ogam scores, and his misrepresentation was copied by subsequent writers.'* It is probable that the holed-stones found in connection with church buildings date from ante-Christian times, and were consecrated by the emblem of the cross to the religious services of a people recently won to Christianity, but who still possessed some lingering reverence for the idols of their forefathers.

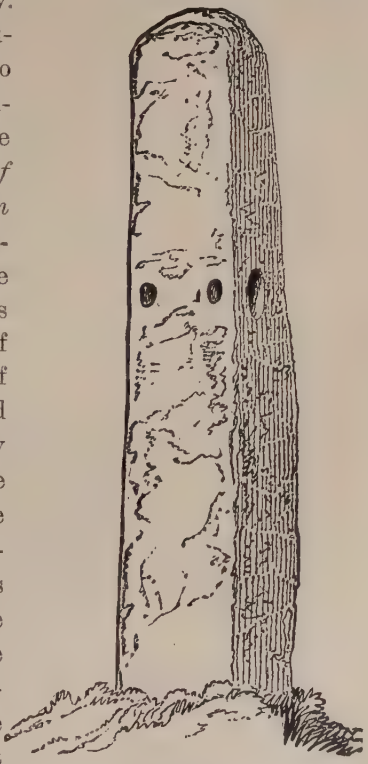
Holed-stone at Mainister, Aran Mór.

The holed-stone at Mainister on Aran Island stands $3\frac{1}{2}$ feet above ground, and the hole is 2 inches wide. It is curiously incised with a double circle and ringed

* *Journal* Roy. Soc. of Antiq. Ir., 1892, p. 68.

cross, the top of the latter ending in small spiral pattern. It is held in great reverence, and small articles of clothing of sick persons are drawn through the orifice in hope of their recovery.

The following particulars of holed-stones, to which popular superstitions are attached, are derived from *A Survey of Antiquarian Remains in Inismurray** by Mr. Wakeman. This island, off the coast of Sligo, presents three fine specimens of the pillar-stone, two of which must be considered valuable, and probably unique examples of the 'holed' class. These are sometimes called 'Praying stones' by the natives of the island. The more important stands on the southern side of Teampull-na-bfear, or the 'Church of the men,' at a little distance from that structure. It measures 4 feet in height, 11½ inches in breadth at top, 1 foot 1 inch at base, and about 7 inches in thickness.



Holed-stone at the 'Church of the Men,' Inismurray.

* *Annual Volume* Roy. Soc. of Antiq. Ir., 1892.

The monument faces east and west; its edges and eastern side are plain. The western face, on which a graceful cross has been incised, exhibits two holes of a size just large enough to admit the insertion of a thumb. It may be observed that the arms and head of the symbol terminate in spirals like those found upon the celebrated 'Alphabet Stone' at Kilmalkedar, the work upon which has been held, by acknowledged authorities on such matters, to belong to the sixth, or at latest to the seventh century of the Christian era. The orifices extend through the adjoining angles of the stone, and open out at its sides in apertures sufficiently spacious to receive the fingers of a full-sized hand. In connection with this pillar-stone, as also with a similar monument situated close to Teampull-na-mban, or 'Church of the women,' a custom which is worthy of record, very generally prevails. Women who expect shortly to become mothers are wont to resort to these stones, for the purpose of praying for a happy issue from the perils of their impending travail. The natives assert that death in childbirth is an unknown calamity upon the island. The postulants kneel, passing their thumbs into the front, and their fingers into the side openings, by which means a firm grasp of the angles of the pillar is obtained. They are thus enabled to rise from their act of obeisance with a minimum of strain or difficulty. A pillar-stone, unperforated and uninscribed, of about the same dimensions as that just noticed, is seen immediately beside it. The two stand in line at right angles with the northern wall of the very ancient church almost immediately adjoining.

The second holed-stone, to which we have already referred, bears upon its eastern face a plain Latin cross. It is 5 feet high, 10½ inches broad at base, 11½ inches at top, and 4½ inches in thickness. Like its fellow at the 'Church of the men' it is held in profound veneration, especially by the women of the island. The pillar may indeed be prehistoric, and the cross an addition. The type of cross which it exhibits is characteristic of the earliest Christian times in Ireland; this being so, the monument in its present style may be assigned to a period not later than the close of the sixth century.

Rock Scribings, Cup-and-Circle Markings.—This subject has proved of considerable interest to archæologists everywhere. Rock scribings or markings, whether noticed upon European, Asiatic, or American rocks or monuments, often in their general features bear so strong a family likeness that it is at first sight difficult to believe that they have not been executed by one and the same race of people. But we know that the minds of savages or semi-savages, situated widely apart, and placed under somewhat similar environment, will instinctively run in parallel grooves of thought; and thus, in the form, material, and ornamentation of their objects of veneration, arms, and implements of everyday life, as well as in their personal decorations, present a like development. It need be no wonder then that, far and near, over the surface of the Old and of the New World, rock and stone scribings are to be found, and that they should frequently have many common characteristics. Until recently these antiquarian puzzles have received

but little attention from Irish archæologists. Petrie does not seem to have noticed their existence; O'Donovan and O'Curry make no mention of them; nor do the older writers, except in one or two instances, where a single stone or so is referred to as bearing work of a mystic and barbarous character. The forms of these markings to be met with in Ireland are these: cups; cups and rings; the same with radial channel; concentric rings; penannular rings; spirals; stars; triangles and wheels; zigzag and other lines. Considerable attention has been given in recent years to the elaborate scorings on the rocks forming the great chambers at Newgrange, Dowth, and Loughcrew, Co. Meath, to which we shall refer in a subsequent chapter. In these 'Ireland,' as Colonel Wood-Martin says, 'possesses a collection of this species of prehistoric ornamentation which, in singularity, number, and quaintness of design, is approached in point of interest only by some of the great stone chambers of the district of Morbihan.'

The late Dr. Graves, Bishop of Limerick, in the publications of the Royal Irish Academy, appears to have been the first to draw attention to sculpturings of this class found in Ireland. Subsequently the subject was taken up by inquirers, in various parts of the world, who found in their own countries kindred rock carvings. In Ireland the groups of designs found upon the surface of our undisturbed rocks exhibit in many instances characteristics almost, if not entirely, peculiar to themselves. For instance, the incomplete concentric circles with a central cup, from which extends a straight or slightly curved stroke, called 'the channel,' through

and sometimes beyond the outermost gap in the curved lines, are absent from the varied figurings found in the great sepulchral chambers. Again, the spirals of the stone sepulchres are, as far as we are aware, invariably absent in the array of designs found upon the undisturbed or natural rock. This circumstance was not left unobserved by Dr. Graves when describing his discoveries in Kerry. But upon one small stone in the neighbourhood of Tullakeel, near Sneem, he found a rude carving of a short portion of a spiral. This stone lay set in a fence; it may have belonged to some tomb of which no other relic is known to remain, so that little argument can be based on the character of its scribing. Although antiquaries are not yet in a position to pronounce authoritatively on the precise significance of our rock markings, a glance at some early speculations as to their nature may not here be out of place. It has been suggested that the circular markings were intended to represent shields. 'This notion,' says Dr. Graves, 'seems inconsistent with the fact that the same stone presents so many circular symbols of different sizes, varying from the small shallow cup of an inch or two in diameter to the group of concentric circles two feet across. It also seems probable that, as shields in general used to bear distinctive devices, these would appear in the inscriptions; but the inscribed circles exhibit no such variety as might have been expected on this hypothesis. Again, if the circles represented shields, what could be meant by the openings in the circumference of so many of them? Lastly, what connection could there be between the idea of shields and

the long lines appearing in the Staigue monument, or the short ones on that of Ballynasare? Another idea was that these figures were designed to represent astronomical phenomena.' For several reasons he rejected that theory, particularly as it failed to account for the openings in the circles, the absence of figures indicating the sun and moon, and not even the rudest attempt at the phases of the lunar body. It was also suggested that the circles were intended for moulds to cast metal rings. The fact of the circles so often occurring on a sloping face of a rock renders this untenable. That the circles were used for some game was rejected from the varying sizes of the circles on different stones. 'The idea which occurred to my own mind,' he continues, 'was, that the incised circles were intended to represent the circular buildings of earth or stone, of which the traces still exist in every part of Ireland. This conjecture is supported by the following considerations:—1. The circles are of different sizes, and some are disposed in concentric groups. The ancient dwellings and fortified seats of the ancient Irish were circular; they were of various sizes, from the small cloghan, or stone house, of ten feet in diameter, to the great camp including an area of some acres; and the principal forts had several concentric *valla*. 2. The openings in the inscribed circles may have been intended to denote the entrances. 3. The other inscribed lines may have represented roads passing by or leading up to the forts.'

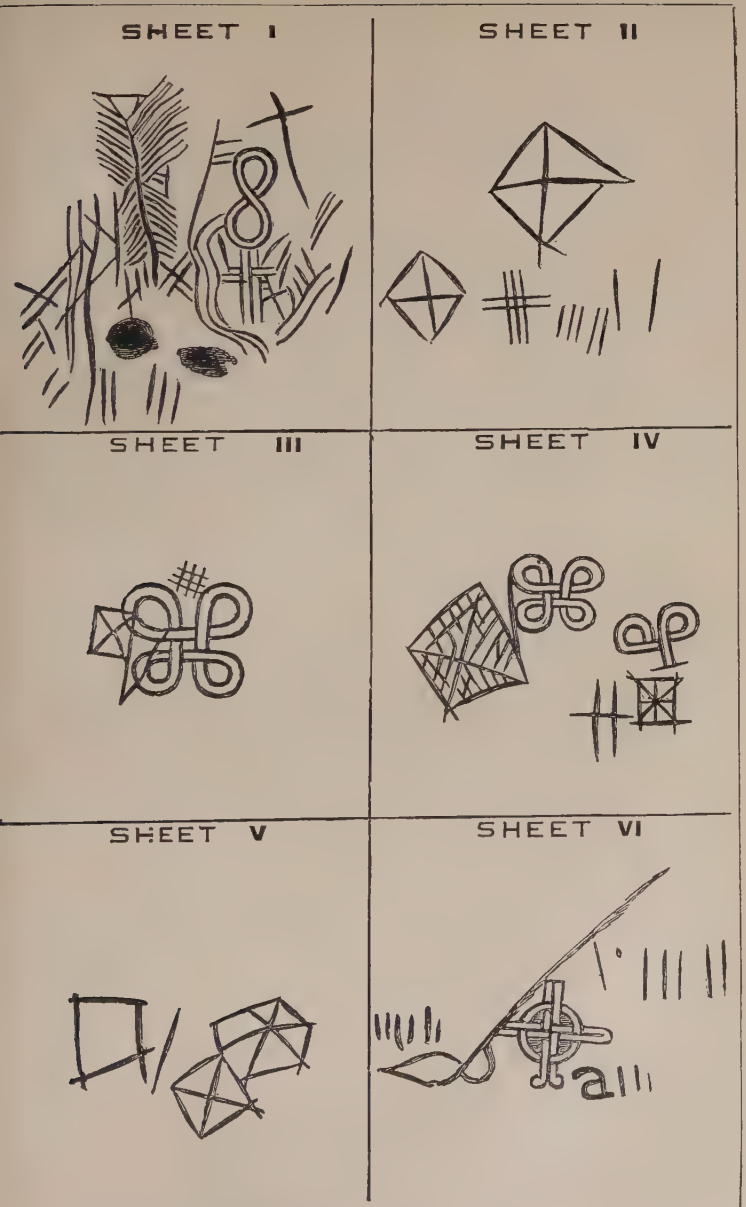
Discouraged by the reception with which his theory was received, he laid his drawings aside for many years. Returning again to the subject, he gave it further exa-

mination, which confirmed his original opinion. He says: 'The centres of the circles and the neighbouring cups and dots arrange themselves generally three by three in straight lines. This disposition of the symbols could not be said to be perfectly accurate; but I thought I could observe close and designed approximation to it. If, then, the circles represent forts, and are disposed three by three in straight lines on the inscribed stones, I saw that we might expect to find the forts disposed in like manner over the surface of the country; and I think that I have succeeded in verifying this inference. The ancient raths have fortunately been laid down on the six-inch Ordnance Survey maps of Ireland; and unless I am deceived by fortuitous collineations, I find that the forts are actually arranged three by three in straight lines. The discovery of this fact, if it be a fact would be of much more consequence than the explanation of the meaning of the inscriptions of which I have just given an account. But this further inquiry must be conducted with care. Large portions of the country must be examined, and those difficulties must be confronted which the disappearance of ancient remains must inevitably give rise to.'*

It has been objected to the map theory that in the parts of Scotland and England where circle-and-channel scorings occur most numerously, no raths or forts, or, if any, very few, are to be found. But it may be urged that the early British strongholds, corresponding to our raths, duns, and stone forts, were very frequently composed of perishable materials, such as timber stockades,

* *Transactions* (*Antiquities*), Roy. Ir. Acad., vol. xxiv., p. 421.

Rock Scribings, Mevagh, Co. Donegal. (Scale, one-fourth.)



Scribings on sides of Knockmore Cave, near Derrygonnelly, Co. Fermanagh.
(Scale, one-third.)

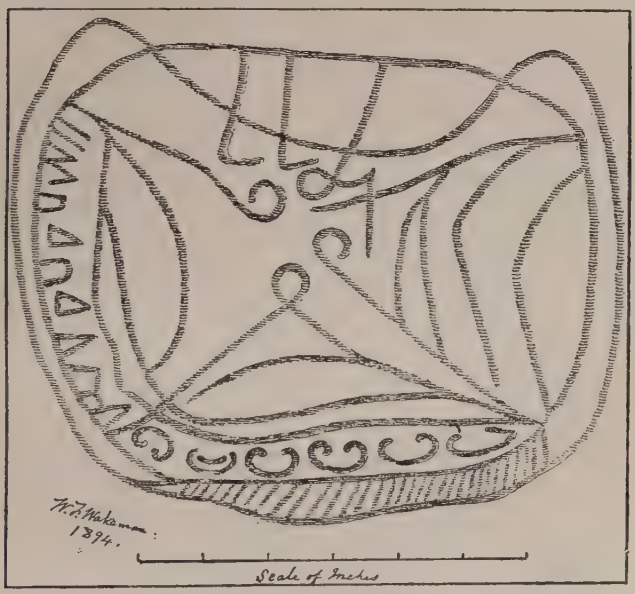
or the interwoven branches of trees, of which, in the course of a few centuries at most, no trace would remain.

Only a small portion of the rubbings and drawings made of the rock scribings by Bishop Graves was published by him. Mr. Robert Day has published some interesting examples taken from a scored rock of red sandstone on the road between Bantry and Ballydehob. The scribings consist of circles, cup-shaped cavities, penannular rings, and V-shaped markings.* The late George Du Noyer describes at length some which he found in various parts of the country†; and other antiquarians have largely added to the list. Amongst these is Mr. G. H. Kinahan, whose descriptions and illustrations of the scribings on rocks in Wicklow and Wexford, and in the Mevagh and Barnes districts (Co. Donegal), deserve attention.‡

A stone now in the Grainger collection of the Museum, Belfast, and which once stood on a hill near Broughshane, Co. Antrim, furnishes an instance of elaborate scoring within a roughly shield-shaped outline. The stone is stated to have been originally found covering a cist. A similar example of scorings was found in a sepulchral chamber at Cloverhill, near Sligo.§ Mr. Wakeman discovered, near Boho, Co. Fermanagh, about nine miles from Enniskillen, a cluster of large rocks bearing a number of the cup-and-circle devices.‖

* *Journal* Roy. Soc. of Antiq. Ir., 1868, p. 91.
† *Ibid.*, 1864–6, pp. 357, 497.
‡ *Ibid.*, 1883–4, p. 222; 1887–8, p. 427.
§ *Ibid.*, 1879–82, p. 552.
‖ *Ibid.*, 1874–5, p. 445.

In the same neighbourhood were similar markings on the living rock. They occur a little to the south of Lough Blocknet, on the slope of the hill.



'Shield pattern' Rock-sculpture, from Broughshane, Co. Antrim.

Important examples of rude sculpturings appear upon the walls of certain natural, or perhaps semi-artificial, caverns occurring at Knockmore, close to the village of Derrygonnelly, Co. Fermanagh. The chief of these is the 'Lettered Cave,' so called from the carvings of an early date with which its sides are scored. The dimensions of this singular retreat are as follows:—Height, at the mouth, 10 feet 5 inches; these proportions gradually lessen to a distance of about 18 feet

from the external opening. There the passage takes an oblique turning to the southward, and continues to a distance of about 9 feet further into the heart of the limestone. The height of the chamber at its extreme end is about 5 feet. The opening faces north-east, and is well sheltered from the wind by a grassy knoll, which extends, right and left, in front. There is every reason to believe it was long used as a habitation or place of retreat. The markings are placed, without any attempt at symmetrical arrangement, upon almost every smooth portion of the rocky surface of the interior. Many are extremely well marked; others have become all but obliterated through the influence of time, the efflorescence of the stone, and the action of persons who have in many places scraped away the ancient figurings, or portions of them, in order to find space for inscribing their respective names; but, nevertheless, a considerable portion of the old markings remain in excellent condition. These scribings consist for the greater part of a number of figures and designs usually considered, by archæologists, as prehistoric. But whatever may be the age and character of such carvings, there can be no doubt amongst antiquaries that an elaborately-formed interlacing cross, which may be seen engraved upon the left-hand side of the entrance to the cave, must be referred to an early Christian period.

Knockmore contains on its northern side, in a situation rather difficult of access, a second scored and partially artificial cavern. This little eyry, which is only large enough to retain in a recumbent position

two, or at most three, persons of ordinary size, must, while yet the slopes of the knock were covered with trees and brushwood, have formed a very secure retreat, That it was inhabited in early days is certain, as upon digging up a considerable portion of the floor, indications of fires having been used were traceable on at least three separate levels. At a little distance from the surface, amongst burnt-looking earth and particles of wood charcoal, Mr. Wakeman found some bones of animals which had been used as food. They were generally very small, and difficult of identification, but amongst them occurred those of the red deer. The carvings here are rather of an elaborate character, and form an interesting combination of the older style of sepulchral rock-sculpture with what is generally considered early Irish work, but of a period subsequent to the spread of Christianity in this country.*

A third cave, situated three and a half miles from that of Knockmore, and over four from the police station of Boho, contains some very interesting examples of cavern scorings. This weird spot is worth visiting, though there is no road running nearer to it than at a distance of four miles. The name of the place is Loughnacloyduff, or 'Lake of the dark trench.' The lake, or lough, which covers about one acre, is bounded on its northern side by a shattered cliff of yellowish sandstone, rising to a height of perhaps thirty feet above the

* The cave is known by the name 'Gillie's Hole,' and was used as a retreat, about a hundred years ago, by a pair of lovers who, in consequence of an imprudent marriage, had been discarded by their friends. Such is the local legend.

level of the water. Within the face of this rock are several caverns, two of which present every appearance of being, in part at least, artificial. The largest measures about 6 feet in height, by about the same in breadth, and 10 in depth. The sides and roof are extremely rugged, except here and there where some little care appears to have been exercised for the reception of a series of scorings of various kinds, any notice of which, up to the time of our visit, had not, as far as we are aware, been published. The principal cave is connected with a second and smaller one, lying upon its western side, by an aperture in the partition of rock, by which, but for this provision, the two chambers would be completely severed. The lesser cavern is small, rude and uninscribed, but sufficiently large and dry to have been used as a sleeping apartment by the primitive occupants. The carvings at Loughnacloyduff consist chiefly of crosses enclosed within an apparent lozenge; of starlike designs; and of strokes which look very like a species of Ogam writing. The caverns, once perhaps the home of the cave-dweller, are now the dens of wild animals—the fox and the brock or badger, as the bones of other animals and the tattered plumage of birds testify.

In our observations on Caves, we have confined ourselves to those which are natural, or partly artificial, rock-caverns, and in no instance referred to the souterrains —underground passages and chambers, lined with dry-stone masonry and roofed over with flags, found very plentifully in various parts of the country, and too carelessly or vaguely described by some writers under

the title of 'Caves.' These will be dealt with in a subsequent chapter.

As we have already intimated, in the present state of our knowledge it is impossible to dogmatize upon rock markings. Caution must be used in any attempt to interpret them. Many are no doubt due to natural causes. The familiar water-marks on the Old Red Sandstone formation may too readily be taken for cuttings made by the hand of man. The late Richard Rolt Brash once observed, in the sections of vertical rock strata in the quarries of South Wales, cup-like holes, with corresponding bosses on the opposing layers, and was of opinion that these were sometimes taken for artificial hollows. The late Dr. Frazer, following on the lines of M. Valenciennes, found the *Echinus lividus* lodged in a cup-like hollow burrowed for itself in the rocks on the seashore of Bundoran. Dr. Frazer expressed his opinion that the cup-markings on the rocks round the shore of Lough Melvin, once probably an arm of the sea, were due to the same cause; and further, that some of the markings on rocks described by Sir James Simpson in *British Archaic Sculpturings* were pittings of the *Echinus*.* Many of the cup-like indentations in the limestone rock are, in the opinion of some scientists, due to acid secretions of the snail, notably the *Helix aspersa*. Making due allowance for these natural causes, yet a mass of rude markings by the hand of man remain, difficult to interpret as to their origin, their meaning, and the people to whom they are to be assigned. In many districts of this country,

* *Journal* Roy. Soc. of Antiq. Ir., 1895, p. 64.

and some of them widely apart, we find upon the sides of caves and rocks, and within the enclosure of pagan sepulchral tumuli, a certain well-defined class of markings, often arranged in groups, and with few exceptions, presenting what may be styled a family type: we can hardly imagine them to be the result of caprice. In ancient and in modern times, men confined by necessity to a listless existence, in an inhospitable district, or when tending flocks and herds, might very naturally have beguiled their hours by carving with a stone or metallic instrument such figures as their fancy prompted, upon the nearest object which happened to present a surface more or less smooth. Scorings or patterns made under such circumstances would be, in character, as various as the skill or humours of the designers.

Rocking-stones.—In a field situated not far from the 'Eglone' (see page 12) occurs a huge mass of the same lithic character. It is known as the Rocking-stone, and, although some tons in weight, may be swayed some eighteen inches on either side by very slight exertion of the hand. These so-called 'Rocking-stones' are to be met with in various parts of Ireland and Great Britain. Up to a comparatively recent period they had been supposed to have been associated in some way with the celebration of druidical rites or mysteries. That idea is no longer held, except, indeed, by some old-fashioned or superstitious people. Upon the borders of Fermanagh and Cavan, about three miles along the mountain road from the village of Black Lion,

in the direction of the Shannon Pot, may be seen a very characteristic example of the kind of remains under notice. It consists of an immense block of stone, six feet high, somewhat globular in shape, and weighing several tons. The stone rests upon a rock, and is so poised that a moderate pressure of the fingers will suffice to move it. From the position of the mass it would seem to be artificial. It may be that the stone was originally placed where it at present stands in memory of some now long forgotten hero or event, and, owing to an accidental peculiarity, existing either in its own configuration or in that of the supporting rock, was so imposed that it may be thus shaken a few inches backwards and forwards. On the slope of a hill, on the old battle-field of Northern Moytura, is a fine boulder, which we failed to stir, and we were informed by our guide that sometimes the stone rocked, and sometimes it was immovable. The cause of the latter state may probably be due to the clay which is washed down the slope, and rests in the socket on which the rock is balanced. Not far from this, and near the village of Highwood, is another rocking-stone which can easily be moved. On the shore of Brown's Bay, north of Island Magee, is a larger rocking-stone, weighing about 10 tons, which was once believed to tremble at the approach of a criminal.

Rocking-stones are simply erratic blocks dropped into their present positions in the decline of the Ice Age. A similar phenomenon may be witnessed in the 'tables' of a glacier, where the pedestal of ice under the shadow of the rock perched upon it, melts less rapidly than the

surrounding surface. Rocking-stones were no doubt looked upon with superstitious awe by the worshippers of stocks and stones, during the dark ages preceding the introduction of Christianity in these islands.

Druid's Chairs, or Seats: Inauguration Stones, &c.—Other rude stone monuments which we thus classify occur in Ireland. In an article on this subject in the *Gentleman's Magazine*,* Richard Rolt Brash says: 'The class of monument now under consideration has been found in countries widely apart. Examples of the stone chair in its most ancient types have been met with in Ireland, Wales, Greece, and South America.' The examples found in Ireland have been generally speaking of two classes—those associated with the Druids or Brehons exercising their respective priestly or judicial functions, and those used in the inauguration of a chief of a great sept. The so-called 'Coronation Chair' of the O'Neills of Clandeboye, after various vicissitudes and wanderings, is now once again in Belfast. It consists of a rude quadrangular block of common whinstone, from one side of which, slightly sloping backwards, rises a somewhat thin back, in form and size very similar to that of a plain oak chair of the seventeenth century. The Chair is entirely of natural formation, and has evidently never been touched by a tool. In ancient times the chiefs on the occasion of their inauguration were not seated. On the contrary they, as Spenser describes, stood 'uppon a stone allwayes reserved for that purpose, and placed commonly uppon

* April, 1865.

a hill.' Their feet rested within certain sculptured hollows the shape of a man's foot, and which were supposed to indicate the shape and size of the sole of the foot of the first great captain of the reigning race. The great Chair of the Tyrone O'Neills stood on the Rath of Tullahogue when the chiefs were inaugurated, the last occasion on which it was used being that of the inauguration of Hugh O'Neill in 1595. The chair, as Fynes Moryson tells us, Mountjoy 'brake down' in 1602.

'The Hag's Chair,' Loughcrew.

A great boulder on Slieve-na-Calliaghe, one of the Loughcrew hills, near Oldcastle, Co. Meath, is called the 'Hag's Chair.' It stands a few feet within the line of great stones which formed a circle enclosing the principal cairn of that locality. The late Eugene Conwell conceived the visionary idea that he had discovered in it the judicial seat of no less a person than Ollamh Fodhla, whom he describes as 'Ireland's famous monarch and

law-maker, upwards of three thousand years ago'! The stone weighs about 10 tons, and measures 10 feet by 6, and 2 feet 6 inches thick; the ends are raised about 9 inches above the level, forming a rude seat. It has rude markings similar to those already described, but the crosses on the seat and elevated ends were made during the trigonometrical survey. The hag is traditionally said to have broken her neck in attempting a flying leap from one hilltop to another, when depositing cairns upon their summits.

'Druid's Judgment Seat,' Killiney.

A singular pile of stones, usually called the 'Druid's Judgment Seat,' furnishes a good instance of a popular error. This structure stands near the village of Killiney, not far from the Martello Tower, upon the opposite side of the road. It was formerly enclosed within a circle of great stones and a ditch. The circle has been destroyed, and the ditch so altered that little of its original character remains. 'The Seat' is composed of

large, rough granite blocks, and if really of the period to which tradition refers it, an unusual degree of care must have been exercised for its preservation. The stones bear many indications of their having been at least re-arranged at no very distant time. Small wedges have been introduced as props between the greater stones. The right arm is detached from the other part, to which it fits but clumsily. The whole, indeed, bears the appearance of a modern antique, composed of stones which once formed a portion of some ancient monu-

Ancient Stone, Killiney.

ment. One great evidence of its being a forgery consists in the position which it occupies near the eastern side of the enclosure, while the back of the seat is turned towards the west and towards the centre of the space originally enclosed by the stone circle. The following are its dimensions: breadth at the base, 11½ feet; depth of the seat, 1 foot 9 inches; extreme height, 7 feet. Of several detached stones remaining in the enclosure one is remarkable, as the engraving on this page shows, for the form into which it has been cut. It is a work

probably coeval with the original stone circle, and it has been suggested to be symbolical of the sun and moon.

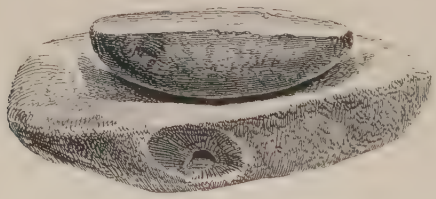
A 'Brehon's Chair,' so called by Beranger, an artist and archæologist who during the latter half of the eighteenth century paid much attention to the subject of Irish antiquities, may be seen on the lands of Glensouthwell, near Hollypark, about three miles and a half from Rathfarnham, Co. Dublin. This monument has been most absurdly misnamed. It is in fact a very remarkable example of the cromlech, or dolmen, and bears no resemblance to a chair of any description. The table, or covering, which had fallen, until a few years ago lay on the ground beside it. This, unfortunately, no longer exists, the stone having been wantonly broken to pieces and used for building purposes.

Legend and tradition associate many such objects with the saints and mythical heroes of the past, and it is only necessary to indicate one or two examples. On the shore of the pilgrim-visited Lough Derg, Co. Donegal, may be seen a large block of stone, which has always been known as 'St. Brigid's Chair.' It is simply a boulder, fashioned by nature into what is at present a very chair-looking object. In the neighbourhood of Letterkenny, in the townland of Lacknacor, is a flagstone upon which St. Columba is said to have been born: the peasantry believe that whoever sleeps upon it for a night will not suffer from home sickness, and it has consequently been frequented by emigrants on the eve of their departure from their native land. Elevated on a circular piece of masonry, in the grounds of Ballyconnell, Falcarragh, Co. Donegal, is a mass of quartz rock, associated with

Balor of the 'mighty blows,' chief of the Fomorians, one of whose strongholds was Tory Island. Balor stole Glasgavlen, a celebrated cow, from a chief on the mainland named Mac Kineeley; the latter planned revenge, but before he could execute it Balor landed on the mainland with his followers, seized Mac Kineeley and cut off his head on the stone, hence called Cloch-i-neely, 'Kineely's Stone.' In local tradition to this day the natural red veins in the stone point to the sanguinary nature of the deed.

Bulláns or Rock Basins.—Throughout Ireland, and particularly in districts of the north-west, basin-like hollows may be found sunk in boulders or cut into the undisturbed rocks, or in the sides or shelving portions of natural caves: these are called 'Bulláns', or 'Bullauns.' In size and section they vary considerably; some examples, in extreme diameter, measuring four feet or so, while others are scarcely bigger than a small breakfast saucer. The average diameter might be taken as fourteen inches. In section they present three distinct varieties: the most usual is that of an inverse cone; many are bowl-shaped; and not a few simply shallow depressions with vertical sides. Many theories have been advanced as to their origin and uses, but as their purpose was doubtless varied, no definite rule can be laid down upon the subject. It has been urged that some of these bulláns may have been associated with pagan sepulchral rites; while evidence seems to warrant a conclusion that, occasionally at least, some were utilized as baptismal fonts, or at any rate, as receptacles for holy

water. They have been considered 'mortars' by some archæologists, and that they were used for pounding grain by the priests living in, or in the cells adjoining, ancient churches. This may apply to some, but not to all, for the hollow is frequently in section an equilateral triangle, with a very acute lower point. It is evident that a bullán thus shaped could never have been intended for pounding purposes. Other examples, which are found on the vertical sides of boulders, or on the almost perpendicular face of the natural rock, could not possibly have been designed for a moment to hold

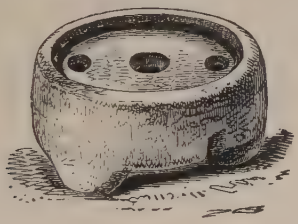


Grain-rubber.

anything like grain. Mr. G. H. Kinahan, however, found bulláns used in Co. Donegal for pounding corn for illicit distilling.* Primitive man no doubt used, as occasion required, such natural rock-hollows as he could find for the purpose of pounding corn or roots for food. A more accessible article, however, was the *Grain-rubber*; this was generally a flat stone, the upper surface of which was hollowed out for holding the material to be prepared for food. A large stone with rounded surface was used for pounding or crushing. A more advanced step in milling was the *Quern*; this has been found in

* *Journal* Roy. Soc. of Antiq. Ir., 1883, p. 174.

most countries and stages of civilization; and has been used in Ireland down to our own day. Fine examples of it and the grain-rubber may be seen in the Royal Irish Academy collection, National Museum, Dublin.



Pot-Quern.

Bulláns are found far apart from churches, on mountains, in valleys, by the banks of rivers and shores of lakes, and in the chambers of sepulchral mounds. Bulláns placed in the face of the rock occur at Garranbane, near Tempo, Co. Fermanagh; and on a great erratic boulder lying by the side of the road leading from that townlet to Enniskillen, at a distance of about one mile from the former place, two well-defined specimens appear. In the townland of Standingstone, within the demesne of Castlecool, close to Enniskillen, a fine pillar-stone, bearing at least two bulláns, may be seen. The stone is at present prostrate; but that it was not always so, is indicated by the name of the surrounding land. Within the great sepulchral chambers of Newgrange, Dowth, and Slieve-na-Calliaghe, Co. Meath, are large examples; and when exploring the pagan cemetery at Drumnakilly, near Omagh, Co. Tyrone, Mr. Wakeman unearthed two bullán stones which had sustained cinerary urns, placed mouth downward upon them. These

stones were deposited in the Archæological Museum of Kilkenny, together with the fictilia referred to.*

As in the case of other rocks, traditions of heroes and saints are sometimes attached to these stones. The late Rev. F. Sherman gives the following instance: Mesgegra, king of Leinster in the first century of the Christian era, was slain and decapitated by Conal Cearnach, the champion of Ulster. The head was laid upon a stone, and the tale records 'that the blood flowed through it to the ground.' The stone is said still to remain in the stream opposite the ruins of the Franciscan church of Clane. 'It is a bullán stone, and has an inverse conical cavity eighteen inches deep, and as many wide, on its upper surface.'† An interesting legend is attached to the 'Deer-stone' in Glendalough, Co. Wicklow. It is said that St. Kevin once found an infant abandoned by its mother; his anxiety to procure it food was relieved by the appearance of a beautiful white doe, that was then, and afterwards daily, milked into the 'Deer-stone.' The antiquity of the stone is doubted.

Bulláns are found in pairs, as at Kill o' the Grange, near Blackrock, Co. Dublin; in threes, as close to the ancient church of Templenaffrin, adjoining Belcoo, Co. Fermanagh; and in numbers up to nine. Of the large number that are to be found scattered throughout the country, two very striking examples of the class deserve special notice. In the townland of Meelchans, about

* This—the Royal Society of Antiquaries—collection has been transferred, with the exception of objects of a local interest, to the National Museum, Kildare-street, Dublin.

† *Journal* Roy. Soc. of Antiq. Ir., 1874–5, note, p. 281.

three miles from Tullamore, is a *nine-holed* bullán. This is a fossiliferous limestone boulder, differing from the limestone of the surrounding district. On the face of the rock from which the earth had been removed, in a radius of three feet, circular hollows were found. Four of these measured one foot in diameter; two were smaller, and the depth was about half the diameter; a seventh was but partially cut: the dressing of these being smooth. The remaining two were natural depressions.* Another nine-holed bullán lies upon the shore of Upper Lough Macnean, near the ancient church of Killinagh, and in the immediate vicinity of a well called 'Tober Brigid,' formerly, and we believe still, held very sacred by many of the neighbouring peasantry.† The bullán is a round boulder of red sandstone, measuring 5 feet 9 inches by 5 feet 2 inches. On its somewhat table-like surface are nine hollows placed somewhat irregularly, one being nearly in the centre of the group. Each of the depressions contained a stone, generally of an oval form, and nearly filling the hollow. Superstitious beliefs and practices still linger round many of these stones; and many bulláns are found associated with certain springs or wells usually esteemed holy, but the special significance of these associations it is now difficult, if not impossible, to determine.

* *Journal* Roy. Soc. of Antiq. Ir., 1868–9, p. 349.
† *Ibid.*, 1874–5, p. 460.

CHAPTER II

STONE MONUMENTS—*continued.*

SEPULCHRAL REMAINS—CISTS—THE CROMLECH—KERNANSTOWN—LARBACALLEE—MONASTERBOICE—GREENMOUNT—CROMLECH OF THE FOUR MAOLS—BLACK LION—LEGANANNY—BALLYMASCANLAN—PHŒNIX PARK CISTS—HOWTH—KILTERNAN—MOUNT VENUS—SHANGANAGH—BRENNANSTOWN (GLEN DRUID)—GLENSOUTHWELL—GLENCULLEN BALLYEDMOND—SHANKILL—KNOCKMANY—CLOGHTOGH—SLIEVEMORE—LENNAN—CASTLEDERG.

IT is now admitted by all competent authorities that the works scattered throughout Ireland, varying from the rude structures known as cromlechs and the gigantic chambered cairns, like those of Newgrange and Dowth, down to the simplest cist, alike varieties of the cromlech idea, are graves of a primitive people. But we may go a step further than this. It is perfectly evident that the people who erected the cromlechs and tumuli were far more solicitous about the abodes of the dead than they were regarding their own dwellings, built as these were of wood and wattles, covered with turf and earth, and subject to ready decay. 'On the other hand,' as Dr. Munro well says, 'the tomb was constructed of the most durable materials, and placed on an eminence, so as to be seen from afar, and to be a lasting memorial among succeeding generations.'*

* *Prehistoric Scotland*, p. 279.

Towards the close of the Stone Age the custom of burning the bodies of the dead was practised by the inhabitants of the British Isles. The dead were also disposed of by ordinary burial, by placing the body in either a horizontal, sitting, or perpendicular position. Both methods were practised throughout the whole succeeding archæological period, or Bronze Age, as numerous remains testify. When cremated, the calcined remains were placed in an urn, and then deposited, often with a small food-vessel, within an artificial chamber. This is called a *Cist*, or *Kistvaen*, and is usually a small rectangular chamber made of flags or rude stones. Over these chambers it was often customary to raise a cairn of stones or earthen mound. The cist has, however, been frequently found in open fields and other unexpected places. Cinerary urns, too, have been found within an area of stone circles, in tumuli not many feet from the surface, and in mounds that in their centre contained other, and probably more ancient, burial deposits.

In case of interment the grave was sometimes formed of flags, often of considerable size, placed edgeways, and enclosing a space, covered with stones, barely sufficient to contain the body, and over which a cairn or mound was raised. The body was also deposited in a chamber formed of large rude stones, often found standing free; but sometimes the chamber was covered by a mound or cairn, and was accessible by a passage from without. To the uncovered remains of these burial structures the name *Cromlech* is generally applied. The cairn or mound was often surrounded by a circle of stones, and

traces of this still exist in some of the sepulchral monuments. Sometimes the space in which the remains of several bodies have been found is barely sufficient for one body, and it is supposed that they were broken before interment. Cremated remains are often found with the remains of an interred body; and this may have been the result of human sacrifices offered to the manes of the dead.

An interesting account of burial in an upright position is referred to in the *Book of Armagh*, where King Laoghaire is represented as telling St. Patrick that his father Niall used to exhort him never to believe in Christianity, but to retain the ancient religion of his ancestors, and to be interred in the Hill of Tara, like a man standing up in battle, with his face turned to the south, as if bidding defiance to the men of Leinster.

'Cremations and bodily interments,' says Colonel Wood-Martin, 'have been found intermixed in a manner to lead to the belief that both forms of burial prevailed contemporaneously. Urns to contain the ashes of the dead were, possibly, used as a special mark of honour; also, perhaps, to facilitate the conveyance of the human remains from a distance to the chosen place of interment. In a country wherein were thick woods and long stretches of bog to be traversed, the passage of funeral processions must have been attended with delays and difficulties.'

The ordinary *Cromlech*, when perfect, or nearly so, consists of three or more stones, unhewn, and generally so arranged as to form a small enclosure. Over these a large and usually thick stone is placed, the whole form-

ing a kind of vault or rude chamber. It is generally rude in appearance, the stones often consisting of mere amorphous blocks. In Clare, where the limestone is found more or less in a laminated form, the cromlech becomes more symmetrical, and is often very perfect in shape.

The cromlech is usually styled 'Dolmen' by English and Continental writers. Our peasantry, however, as a rule, call them 'Giants' Graves,' or not unfrequently, when retailing a tradition and speaking in Irish, 'Leaba Diarmida agus Graine,' or the Beds of Dermot and Graine, from two historical personages who, according to an old legend, eloped together, and flying through the country for a year and a day, erected these 'beds' wherever they rested for a night. Graine, or Grace, was the betrothed wife of Fin Mac Coul, and daughter of King Cormac Mac Art, who lived about the middle of the third century A.D.; her lover was Diarmid O'Duibhne, of whom several stories are still current. According to this legend there should be just 366 cromlechs, or 'beds,' in Ireland. But mythical as the story is, it is nevertheless of some interest, as it connects the monuments with pre-Christian events. In parts of the north and west of the country they are sometimes styled 'griddles.'

The true *Chamber Monument* is an extended form of the cromlech, and differs from it in that the roof is formed by a succession of overlapping slabs resting on the stones forming the walls, and gradually rising from the lower end. The top cap-stone, while resting on the uprights, not only closes the chamber, but by its weight

keeps in position the overlapping stones which help to support it.

In some cases the covering stone of the cromlech seems to have slipped from its original position, and will be found with one end or side resting upon the ground. Du Noyer was of opinion, shared by the late Mr. Borlase, that this was originally the case in some examples, the builders having failed in their efforts to raise the ponderous table or covering stone, or to procure suitable supports. The position of the upper stone, or roof, is usually sloping; but its degree of inclination does not seem to have been regulated by any intention or design. This general disposition of the 'table' has been largely seized upon by advocates of the 'Druids' Altar' theory, as a proof of the soundness of their opinion that these monuments were erected by the Druids for the purpose of human sacrifice. Some, indeed, have gone so far as to discover in the hollows worn by the rains and storms of centuries on the upper surface of these stones, channels artificially excavated, for the purpose of facilitating the passage of a victim's blood earthwards!

The question whether the cromlech was originally covered by a cairn or mound has been the subject of much discussion, but its full consideration is outside the limits of this work. The great majority of existing cromlechs in Ireland are, now at least, of the free-standing order. Of these some, from the nature of their position and structure, could never have been the centres of tumuli. Others, no doubt, were covered; but, in the case of most, time has so altered their condition that it is now difficult to determine how they really stood in

their original and finished state.* A little consideration will show that, as the cromlech and covered chamber belong to the same general class of sepulchral monuments, it was intended by the original builders that access should be had to them from without. Mr. Borlase, agreeing with Fergusson, is 'inclined to regard the dolmens as no mere tombs intended to be closed for ever, but as sacred shrines in which the spirits of the dead were worshipped, and which were constructed with a view of being accessible to devotees.'† The remains deposited within had to be protected from the severity of the weather and the intrusion of wild animals. In the case of the uncovered cromlech all intervening spaces would be closed up with smaller stones and earth, and the walls banked up to the edge of the cap-stone. Mr. Borlase advances the theory that the cromlech, hitherto technically so-called, is the more megalithic portion of the giant's grave, and 'that both types, despite the difference in their appearance in the condition in which we now find them, belong to one and the same class of dolmen, originally of elongated form.'‡ He supports this by pointing out that the 'giant's grave' is a long, wedge-shaped structure, rising gradually

* Mr. G. A. Lebour, in *Nature*, May 9th, 1872, speaking of the character of the principal dolmens and cist-bearing mounds of Finisterre, says that 'in most cases in that department the dolmens occupy situations in every respect similar to those in which the tumuli are found, so that meteorological, and indeed every other but human, agencies must have affected both in the same manner and degree. Notwithstanding this, the dolmens are invariably bare, and the cists are as constantly covered; there are no signs of even incipient degradation and denudation in the latter, and none of former covering in the first.'

† *Dolmens of Ireland*, p. viii. ‡ *Ibid.*, p. 430.

from a lower to a higher end, the latter having the heavier supports and larger covering stone. These would be the more difficult to destroy, for, in the long lapse of time, as stones were required for building or other purposes, the smaller and lighter would be carried away. How far this may be the case we cannot here consider; but some cromlechs, such as those raised of great boulder rocks, could never have been of the extended order of structure.

The number of these sepulchral remains scattered throughout the country is very great. Mr. Borlase enumerates them as follows: dolmens, certain, 780; chambered tumuli, 50; uncertain, 68—total, 898. Of these dolmens, Connaught has 248; Munster, 234; Ulster, 227; and Leinster, 71. The counties richest in these are—Sligo, 163; Clare, 94; Donegal, 82; and Cork, 71. The area of geographical distribution of these megalithic monuments is very wide. It extends from western Asia — Syria, Palestine, and Turkey — over north Africa, through south-east Europe, France, Spain, Portugal, over north Germany, and northern Europe. In France they reached a high degree of perfection. England and Wales furnish many examples similar to the Irish cromlechs; but they are rarely, if ever, found in Scotland.

The question naturally suggests itself, How were a primitive people, with such rude mechanical means as they possessed, able to raise those huge stones into the positions in which they are now found? Several theories have been advanced, which may be briefly stated. It has been suggested that the great covering

stones of the cromlech having been found *in situ*, they were undermined, and a chamber formed beneath by the removal of the earth. As the work progressed uprights were by degrees placed in position, of sufficient weight and strength to support the great covering stone. Instances are found in Ireland to which this theory might, perhaps, apply; but the method could not have been adopted in such cases as that of the Ballymascanlan cromlech, where the cap-stone rests on clear supports 8 or 9 feet high. The plan suggested by the King of Denmark has been accepted by many, and it may have been adopted in some cases. In this, the supporting stones having been placed in position, an inclined plane or bank of earth would be raised, sloping from the level of the uprights to the ground. Up this the roofing stone would be worked, over blocks of timber placed side by side, by means of levers, wedges, and haulage. The absence of all traces of such banks in existing cromlechs, and other considerations, have been urged against this method of raising these structures. On the ground that all cromlechs were originally of the 'giant's grave' order, Mr. Borlase urges the theory that the cap-stones were raised one by one, the largest first, until it fell into its place upon the highest uprights. He considers that the disarrangement in the lines of the side stones, and the presence occasionally of buttresses, support this view. By using beams of timber and rollers it was possible, with great and united human strength, to lever very heavy rocks, bit by bit, into position.

Given sufficient men, great masses of stone may be moved over long distances and raised into position, even

with the rudest means. There is no evidence whatever to show that the ancient Egyptians possessed any machinery to economise human labour in moving great monoliths. They were, it must be remembered, especially favoured in the Nile as a waterway, and the quarries, as a rule, were near its banks. In their pictorial records, so graphic in illustrating every art and craft, there is no reproduction of any machine or engineering expedient, except those of the very simplest kind; but the records do show that they employed large bodies of men in this kind of work, who were specially trained to haul with military precision. The earliest record of such work is that of an official of the 6th Dynasty (3350 B.C.), who brought a monolith to Memphis, which required the services of 3000 men. A record on the tomb of Tehuti-hetap, an official of the 12th Dynasty (2622–2578 B.C.), shows a statue on a sledge, drawn by 176 men, divided into four parties of 22 pairs, each party to a single hawser. A superintendent stands on the knees of the statue, giving, as the inscription states, 'the time-beat to the soldiers,' by clapping his hands. The two obelisks, each 97½ feet high, and 300 tons in weight, erected by Queen Hatshepsut (1503–1481 B.C.), were cut in the quarries of Assuan, and transported to Karnak in seven months. A still more remarkable instance of transporting great masses of stone was that of the fallen statue of Rameses II., which must originally have been 60 feet high, and weighed 800 tons. But this work was eclipsed by the same monarch in the statue erected at Tanis in the north-east Delta, which must have stood 92 feet in

height, and weighed 900 tons, at least. It was brought from the quarries of Assuan, 600 miles distant. With such examples as these, accomplished with simple means, there is nothing surprising in the erection of the rude megalithic monuments by the primitive inhabitants of these islands.

We shall now refer more specifically to some interesting examples of the numerous remains of the rude covered and uncovered chambers found in Ireland, as distinguished from the great tumuli presently to be described.

Kernanstown Cromlech, Carlow.

Kernanstown Cromlech is about two miles north-east of Carlow, and is the largest in Ireland. This magnificent granite block is securely supported on three uprights at the east side, standing at a height of 6 feet. At the west end this cap is raised 2 feet. The block is $23\frac{1}{2}$ feet long, $18\frac{3}{4}$ feet broad, $4\frac{1}{2}$ feet thick,

and measures 65 feet round. This is estimated to weigh 100 tons. It makes an angle of 35° with the horizon.

Labbacallee Cromlech.—This, according to Mr. Borlase, 'the most noted dolmen of extended form in Ireland' lies about one and a half miles south-east of Glanworth on the old road to Fermoy. It consists of a double range of stones, the internal lines forming the supports of the covering stones. The largest of the cap-stones measures 15½ feet by 9 feet, the second being partially buried in earth. The entire measurement is estimated by Mr. Borlase to have been not less than 42 feet. The line of direction is east and west; the width of the inner chamber is 6 feet, and it is now 5 feet high, and sinks towards the lower end.*

Monasterboice Cromlech.—This fine monument lies about three-quarters of a mile to the north-east of the old graveyard of Monasterboice, and is known as 'Calliagh Dirra's House.' It is called by the peasantry the 'House or Tomb of Calliagh Vera, or Birra,' a mythic witch, whose name is associated with several wild legends referring to the mysterious cairns and other antiquities remaining upon the hills of Loughcrew, near Oldcastle. The work has been considered by some to be of the free-standing order; but Du Noyer says it must have been covered by a tumulus: it is roughly oblong in form, extending exactly east and west, showing the wedge-shaped plan, and measuring, internally, 12 feet 6 inches in length, by 4 feet at one end, and 3

* *Dolmens of Ireland*, vol. i., p. 8.

feet at the other, in breadth. The north and south walls consist each of five large flagstones; four flagstones form the covering, and each end is closed by a slab. The stones forming the walls stand on edge, and some of these have supplemental stones and buttresses.

The Greenmount Chamber is about five miles further to the north, near Castlebellingham. Here, in 1870, General Lefroy opened an earthen mound, which was found to contain a chamber, the measurements of which were 21½ feet by 3 feet 4 inches, the height being 5 feet. The roof was formed of eight large flagstones. From the foundation to the top of the mound was 23 feet. Ashes, burnt bones, charcoal, and teeth of hogs and cattle were found. A bronze celt and plate, with runic character on one side, and elaborate interlaced pattern on the other, were found in the tumulus.

Cromlech of the Four Maols.—This monument is on a hill close to the town of Ballina; the covering stone measures 9 feet by 7 feet, and is supported by three uprights. It is considered of much interest from an incident in early Irish history, mentioned in more than one Irish MS. It relates to the murder of Bishop Celleach, of Kilmore-Moy, son of Eoghan Bel, King of Connaught, and great-grandson of Dathi. Eoghan Bel was killed in battle at Sligo in 537, and in dying commanded the Hy Fiachrach to elect Celleach in his stead. Through the hatred of King Guaire, Celleach was murdered by the four Maols,* his foster-brothers or

* *Maol* may be interpreted 'servant of.'

pupils. The brother of the bishop captured the assassins, and carried them to the banks of the Moy, where they were executed upon a hill hence known as Ardnaree, or the 'Hill of Executions.' The bodies were carried across the river, and buried on a hill on the right bank.

But we cannot say for certain that the cromlech now standing there was erected to their memory. It is probable they were excommunicated and pronounced unworthy of Christian association, here and hereafter. As the bodies had to be disposed of, it is possible that as a further mark of ignominy in this case, they were thrust into a pagan sepulchre which had stood on the Hill of Executions for ages past; though, as Colonel Wood-Martin points out in dealing with the story, 'it would also appear as if the native Irish, long after the introduction of Christianity, sometimes continued to bury in ancient cemeteries.'*

Black Lion Chambers.—About two miles and a-half from the village of Black Lion, in County Cavan, but on the borders of Fermanagh, may be seen two fine 'giants' graves,' the larger of which, measuring 47 feet in length by about 10 in breadth, remains in a complete state of preservation. Five flagstones, some of considerable thickness, closely cover this enormous work. It was, and partially still is, enclosed by an oval line of standing stones, some of which have fallen, while others, in number and position sufficient to convey an idea of

* Some doubt has been thrown on the story as told in the 'Annals': see *Journal* Roy. Soc. of Antiq. Ir., 1897, p. 430.

the original plan, remain *in situ*. At one end occurs a small but apparently undisturbed stone circle. At a little distance stand a cromlech, the covering stone of which measures fifteen feet five inches in length by fifteen in breadth; also another cromlech, besides a considerable number of dallans or pillar-stones. In the immediate vicinity occurs a fine chambered cairn, which, but for the work of rabbit-hunting boys many years ago, might now stand complete. The chamber, or cist, was found to contain a fine cinerary urn. The question suggests itself, Why should this cist-bearing cairn remain almost perfect, while the neighbouring megaliths, if they were ever mound-enclosed, are found cleanly and completely bare? Again, at the Barr of Fintona, we find two important cairns remaining almost completely preserved; while close at hand is a 'giant's grave,' which, if ever covered, is now practically denuded.

Legananny Cromlech.—This cromlech is in the townland of Legananny, on the southern slope of Cratlieve mountain, in Co. Down, about six miles north-west of Castlewellan. The cap is a coffin-shaped granite block, 11 feet 4 inches long, 4 feet 9 inches wide at the south-east end, and 3 feet at the foot or north-west end. It rests upon three upright pillars, the two at the south-west measuring 7 feet and 6 feet 2 inches respectively, the third block at the foot being 4 feet 5 inches high. An urn was found in the chamber beneath. It has no sign of ever having been covered; and Fergusson has instanced it as an example of the free-standing

cromlech in combating the theory that all cromlechs were originally covered by cairns or mounds.

Ballymascanlan Cromlech.—This fine cromlech is about 4 miles north-east of Dundalk, and is known as the 'Proleek Stone,' and the 'Giant's Load.' There

Legananny Cromlech, Co. Down.

is nothing to indicate that it was ever a chambered tumulus. The cap-stone is an erratic block of basalt, measuring 15 feet by 13 feet, and about 6 feet thick, and is variously estimated at 30 to 60 tons in weight.* It is supported by three upright stones of slender

* The Rev. Maxwell Close makes the dimensions $12\frac{1}{4}$ feet by $9\frac{1}{4}$ feet, and $5\frac{3}{4}$ feet thick.

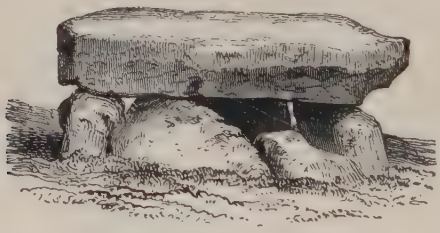
shape, and the total height is about 12 feet. Adjoining is another cromlech of the extended form, and generally known as 'Giants' Graves.'

Phœnix Park Cists.—The neighbourhood of Dublin furnishes many examples of these rude stone monuments of

Ballymascanlan Cromlech.

a prehistoric age. The ancient sepulchre situated in the Phœnix Park, Dublin, a little to the west of the Hibernian Military School, was discovered in the year 1838 by some workmen employed, under the Commissioners of Woods and Forests, in the removal of a tumulus which measured in circumference 120 feet, and in height 15 feet.

During the progress of the work, four stone cists, or kistvaens, were exposed, each enclosing an urn of baked clay, within which were calcined bones and ashes, &c. One of these urns, which is now, with the skulls, shells, and other remains, in the Royal Irish Academy collection, arranged in a case in the National Museum, was fortunately saved in a nearly perfect state. The tomb at present consists of seven stones set in the ground, in the form of an irregular oval, three of which support a covering stone, which measures in



Sepulchral Chamber, Phœnix Park.

length 6 feet 6 inches; in breadth, at the broadest part, 3 feet 6 inches; and in thickness between 14 and 16 inches. The spaces between the stones which formed the enclosure were filled with others of smaller size, which, since the discovery, have fallen out or been removed. The following is an extract from the report of the Academy:—'In the recess they enclosed, two perfect male human skeletons were found, and also the tops of the femora of another, and a single bone of an animal supposed to be that of a dog. The heads of the skeletons rested to the north; and as the enclosure is not of sufficient extent to have permitted the bodies to

lie at full length, they must have been bent at the vertebræ, or at the lower joints. In both skulls the teeth are nearly perfect, but the molars were more worn in one than in the other. Immediately under each skull was found collected together a considerable quantity of small shells common on our coasts, and known to conchologists by the name of *Nerita littoralis.* On examination these shells were found to have been rubbed down on the valve with a stone to make a second hole, for the purpose, as it appeared evident, of their being strung to form necklaces; and a vegetable fibre, serving this purpose, was also discovered, a portion of which was through the shells. A small fibula of bone, and a knife, or arrow-head, of flint, were also found.'

Visitors to the Phœnix Park will find in the grounds of the Royal Zoological Gardens a cist, or diminutive cromlech, in many respects similar to that just noticed, which was discovered some years ago in a sandpit immediately adjoining the neighbouring village of Chapelizod. This monument, though not occupying its ancient position, and, notably, a restoration, should be seen by students of Irish antiquities, the stones of which it is composed having been carefully replaced in their original order. It is on record that within this tomb a human skeleton was found, but no mention of anything else it may have contained has been preserved.

A much more important example of a removed *Cist* is now to be seen in the National Museum, Dublin, which should prove of great interest to the student

of archæology. In August, 1898, in a sandpit at Greenhills, Tallaght, County Dublin, workmen engaged in removing sand from the face of the pit discovered a cist; it measures 24 inches by 19 inches, and the height in the centre is 19 inches. It is formed of single stones two to four inches thick; the bottom stone is broken. It contained three vessels—a large urn inverted and covering a much smaller one, and a food-vessel of flower-pot shape. Under the urn was a quantity of burnt bones. Other urns and broken fragments of pottery, a skeleton, and portions of burnt bones were found in the same pit, which shows that both forms of disposing of the dead existed at the same period of time. The cist, encased in its matrix of sand and earth, was carefully and most successfully removed by Colonel Plunkett, director of the Museum, and his assistants. Expert opinion on the shape and decoration of the vessels places them at the close of the Bronze Period.*

Howth Cromlech.—This fine monument is situated near the base of an inland cliff, within the grounds of Howth Castle, and at a distance of about three-quarters of a mile from the sea-shore. It consists, at present, of ten blocks of quartzite rock; the table or covering stone is 20 feet long and 17 feet broad; it is 56 feet in circumference; and the extreme thickness is 8 feet. The weight of this mass has been computed at 70 tons. It seems as if the enormous pressure caused the supporters more or less to give way; they

* *Proceedings* Roy. Ir. Acad., 3rd Series, vol. v., No. 3.

all incline westward, and the table appears as if it had slipped in that direction, in its course breaking one of the pillars in two. This probably occurred before the block could be placed in its intended position, and it was arrested in its descent by the undisturbed stump of the fractured stone upon which, in an inclined position, it now reposes at its lowest edge. Three of the supporters are about 8 feet high, so that, as Beranger, who visited and described the remains about a hundred years ago, states :—'This,

Cromlech in Howth Demesne.

one of the grandest mausoleums, must have made a noble figure standing, as the tallest man might stand and walk under it with ease.' The structure on the interior would seem to have constituted an irregular chamber, tending east and west; but much disturbance of the stones has occurred, and it would be now impossible by drawings and plans to give a very reliable idea of the original appearance of this still impressive pile, which, we may add, appears never to have been surmounted by cairn or tumulus of any

kind. These stones were formerly called 'Fin Mac Coul's Quoits.'

Kilternan Cromlech is near Kilternan House, 7 miles from Dublin, and half a mile west of Golden Ball. It is

Kilternan Cromlech.

another fine example of its class, when we consider the weight of its table, estimated at 40 tons, and the difficulty, as we must suppose, of raising, in a rude age, such a mass upon supporters. The covering stone, like all others, of this monument is of the granite of the district. Its measurements are: extreme length, 22 feet; width, 13½ feet; greatest thickness, 6 feet 6 inches. The supporters vary in height from 2 to 4 feet, but it is impossible to know how far they may be sunk below the present ground level. Some considerable disturbance in their arrangement appears to have occurred. Several would seem to have subsided, but the roofing

block is still held above ground by the others; the height of the enclosure may be stated as about five feet from floor to roof. The plan of the chamber is very irregular, but it may be described as extending east and west. This cromlech is known as 'the giant's grave'; but there is no local tradition connected with it, folk-lore in this district having generations ago ceased to exist.

Mount Venus Cromlech.

Mount Venus Cromlech.—This monument, situated at Woodtown, about two and a half miles from Rathfarnham, a suburb of Dublin, is no longer perfect. Its table, which may have slipped from its original position, is at present supported by a single stone about $7\frac{1}{2}$ feet in height, and of considerable massiveness. The greatest measurement of the covering stone is 23 feet; it is 12 feet in breadth, and 5 feet in thickness. It is supported at the north-west corner by an upright stone, forming with it an angle of 45°. Several of the former supporting stones would seem to have been removed, and others have evidently been broken. The rock is

granite, of a very hard, close, and durable description. It seems to have weathered but little, as all the remaining stones present angles of considerable sharpness. Du Noyer was of opinion that this cromlech was of what he styled the 'earth-fast' class, and that the roof had always in part rested upon the ground. In this supposition O'Neill, no mean authority on such matters, did

Shanganagh Cromlech.

not by any means coincide. The weight of the covering stone is estimated at 42 tons. So great a pressure might well cause some of the weaker supporters to give way, in which case the pile would very probably assume its present appearance. It is not in the least likely that this tomb had at any time been covered by a tumulus or cairn. Mr. Borlase considers it 'one of the most magnificent megalithic monuments in the world.'

Shanganagh Cromlech.—At Shanganagh, half a mile to the east of the hamlet of Loughlinstown, may be seen a fine specimen of what may be styled, as regards size, a cromlech of the second class. It is supported upon four stones, and presents no appearance of having been enveloped in a mound of any description. Like nearly every one of its kindred remains in the County Dublin, it is formed of granite blocks. The covering stone measures 9 feet in length by 7 feet at its greatest breadth; it is 3½ feet in its extreme thickness; and its highest portion is at present slightly over 9 feet above the ground; the weight is about 12 tons. The chamber would seem to extend east and west. The cromlech may be easily visited from Killiney railway station.

Brennanstown (Glen Druid) Cromlech.—In a picturesque valley, close to Cabinteely, County Dublin, stands a very perfect cromlech. This monument may be reached in a short walk from the Carrickmines railway station. The site is a little over one mile and a-half from the sea-coast. The covering stone is of an irregular form, but the under portion, which forms the top of the chamber, is quite flat and horizontal. The following are its dimensions:—length and breadth, 15½ feet; thickness, 3 to 5 feet. It is not easy to calculate the weight of this mass, on account of the irregularity of form which the block presents; but it is estimated at 36 tons. It rests, as Mr. Borlase points out, on two *antæ*, as well as on the larger stones, and so forms an ante-chamber 5 feet wide at the entrance. A number of detached stones lying

about this very perfect example would indicate that it was originally accompanied by a circle of standing stones.

Glensouthwell Cromlech.—Of this 'Druid's or Brehon's Chair,' already referred to (page 42), Beranger wrote as follows:—'This piece of antiquity, the only one

Brennanstown Cromlech.

yet discovered, is situated at the foot of the Three-Rock Mountain. It is supposed to be the seat of judgment of the Arch-Druid, from whence he delivered his oracles. It has the form of an easy-chair wanting the seat, and is composed of three rough, unhewn stones, about 7 feet high, all clear above ground. How deep they are in the earth remains unknown. Close to it is a sepulchral monument or cromlech, supposed to be the tomb of the Arch-Druid.

It is 15 feet in girth, and stands on three supporters, about 2 feet high, and is planted round with trees. The top stone is $8\frac{1}{2}$ feet long.' The so-called 'chair' still remains, and the above account fairly describes it. The three stones, standing north, west, and east, are, however, $9\frac{1}{4}$ feet, $8\frac{3}{4}$ feet, and 8 feet high, respectively. It never was a 'chair.' It is evidently a rather small but high cromlech that has lost its covering stone. The 'cromlech' noticed by Beranger was probably the block destroyed by blasting in 1876.

Glencullen Cromlech.—This monument is situated on the eastern side of Glencullen, half a mile north-west of Glencullen House, near Kilternan, in a very wild district, extending to the west of the Three-Rock Mountain, and at a distance of some three miles, in a direct line, from the sea. It is described by O'Neill as having 'a roof rock 10 feet long, 8 feet broad, and 4 feet thick, extreme measures. . . . The longest direction of the roof rock is W.S.W., or nearly east and west. The chamber is greatly damaged.'*

Ballyedmond Chamber is $\frac{3}{4}$ of a mile north-west of Glencullen House, in the parish of Kilgobbin. O'Curry, writing of it, says: 'It is a very fine giant's grave, resembling the Bed of Callan More on Slieve Gullion, only that it is more perfect. I doubt if we have met

* The three distinct groups of rocks on the Three-Rock Mountain, a familiar natural feature from the suburbs of Dublin, were considered by Beranger to be 'Druidical remains.' From a distance they appear like cairns, but they were never raised by human hands, and their interest is entirely geological.

so perfect a pagan grave in any other counties hitherto examined. This had been a tumulus, and the earth being cleared away, the grave was to be seen. The tumulus was oval in shape, and its axis, like that of the grave, was east and west.' The side stones of the chamber were ten in number, one of the covering stones, measuring 7 feet by 5, remained in its place.

Shankill Cromlech.—In Cromwell's *Excursions through Ireland*, vol. III., p. 159, there is an engraving, after a drawing by Petrie, of a dolmen at this place, which is situated about four miles to the north or north-west of Bray, at a distance of a couple of miles from the nearest point of the sea-shore. O'Neill, writing in 1852, says that he could not find it, and heard that it had been removed a few years previously. Nevertheless the monument still exists, and was sketched by Mr. Wakeman some years ago. It stands by the side of a road leading across the eastern slope of Carrigollagher, in the direction of Rathmichael, and is a fair specimen of its class. It retains its covering stone *in situ*, but without the end stones.

It is interesting to note that the cromlechs in the east of Ireland are generally of the free-standing and uncovered class. If we want to find similar monuments to those mentioned, we must seek for them much further north, or in districts of the west or south-west of Ireland. It was known that in County Sligo scores of these subaerial sepulchral monuments were to be found surrounded by one or more lines of stones, which are not unfrequently associated with free-standing pillar-stones,

and, as would sometimes seem, with elementary alignments. But, until the appearance of Colonel Wood-Martin's *Rude Stone Monuments of Sligo and Achill*, it was not known that in the west existed T-shaped sepulchres, and others in plan like a dumb-bell, the handle representing the grave, while the bulbous ends might be expressed in the form of regularly-constructed stone circles. He was also enabled to point to triangular graves, a form of burial structure in Ireland previously described by no other writer. 'It is remarkable,' says Colonel Wood-Martin, 'that, in the county of Sligo, the characteristic features of the megaliths varied according to districts: for example, in Carrowmore the circular form was almost universal, whereas in Northern Carbury an oblong arrangement appears to predominate. Again, in the Deerpark Monument, the general architectural principles displayed at Stonehenge can be traced.' In the townland of Carrowmore, to the south-west of Sligo, here referred to, are, or were, the remains, says Mr. Borlase, of sixty-five 'dolmen circles,' forty-four of which are designated in the Ordnance Survey Map. For particulars of these we must refer the reader to Colonel Wood-Martin's survey and Mr. Borlase's work. Before finally leaving the subject of the ordinary cromlech it is necessary to notice some examples which bear markings, seemingly carved with some intention.

Knockmany Chamber.—This interesting sepulchral monument, which is illustrated in the frontispiece to this work, is on the summit of a wooded hill, about

two and a half miles north of Clogher, County Tyrone. The chamber is of the type known as the 'giant's grave'; it lies nearly due north and south, and consists of thirteen stones, most of which are mill-stone grit. None of the covering stones now remain, having probably been removed for building purposes. The tomb seems to have been originally covered by a mound. The internal measurement is 10 feet 3 inches by 6 feet 6 inches; two of the blocks of the east side have fallen inwards. Four of the stones have markings, consisting of cup-hollows, zigzag lines, concentric circles, and other curved patterns. Expert opinion, from an examination of their forms, is inclined to associate the markings with the later Bronze Age of Scandinavia, and to give a probable date of this sepulchral chamber as 500 B.C. The tomb is known locally as 'Aynia's Cove,' popular superstition associating it with a witch or hag named Aynia or Aine. It is also called Knoc Baine, as being the supposed burial-place of Baine, mother of Feidhlimidh Reachtmhar, who was king of Ireland early in the second century. This would bring the monument to the Late Celtic period, which is difficult to reconcile with the archæological evidence already mentioned, associating it with the Bronze Age.*

Cloghtogh Cromlech.—Cloghtogh, the 'Lifted stone,' is situated close to the village of Lisbellaw, Co. Fermanagh. It consists of four great stones, two of which form the sides, and one the end, of a quadrangular chamber. On the front of the fourth stone, which constitutes the

* *Journal* Roy. Soc. of Antiq. Ir., 189[illegible], p. 93; and 1876, p. 95.

cap or covering, were four well-marked cups, averaging $1\frac{3}{4}$ inches in diameter. These, which unfortunately have been chipped off, were placed in a horizontal line, extending over a space of 18 inches, and slightly diminishing in size from left to right. The block is $7\frac{1}{2}$ feet in length, by 6 feet in breadth, the thickness being $1\frac{1}{2}$ feet.

Slievemore Cromlech.—Similar markings may be observed on one of the upright stones of a ruined cromlech standing on the slope of Slievemore, island of Achill, amongst other remains, styled on the Ordnance sheet tumulus, cromlech, Danish ditch, respectively. It is difficult to imagine that the likeness between these two sets of cup-markings is accidental. A similar array of four cups, but placed vertically, may be seen on one of the enormous stones forming the right-hand side of the gallery leading into the great cairn of Newgrange.

Lennan Cromlech.—The inscribed cromlech of Lennan or Tullycorbet, Co. Monaghan, stands upon a knoll called by the people of the district Cruck-na-clia, which may be translated 'Battle hill.' This monument, a fine one of its class, presents every appearance of having always been free-standing. It bears some extremely curious markings, into the character of which the late Sir Samuel Ferguson made careful examination.*

Castlederg Cromlech.—This monument lies about three-quarters of a mile to the north of the town of Castlederg.

* *Journal* Roy. Soc. of Antiq. Ir., 1872, p. 523.

140 yards to the east of the old Strabane road, leading through Churchtown townland. The principal cap-stone was dislodged many years ago by the owner of the farm. 'It appears,' says Sir Samuel Ferguson, 'that the structure had previously been rendered insecure by a stone-mason, who had abstracted one of the supporters for building purposes; and it was suggested that the motive for casting down the cap-stone was an apprehension lest the owner's cattle, in rubbing or sheltering under it, might do themselves a mischief. That the inscription was there at the time of the first disclosure of the upper face of the support on which it is sculptured, is the common and constant statement of the people of the country; but the case rests more satisfactorily on the fact, wholly independent of testimony, that a collateral covering stone remains *in situ*, and that the line of scorings is prolonged underneath it into a position too contracted for the use of a graving tool.'*

The work here consists of a continuous series of straight scorings, accompanied by a number of dots or depressions more or less circular in form. There can be no doubt that a generic resemblance may be noticed between them and many of the markings of the Lenman inscription. This, if there were nothing more, would raise a serious doubt of their being merely accidental or capricious indentations. The great majority of such irregular scorings should, nevertheless, be looked upon with suspicion. Those which occur on the pillar-stone at Kilnasaggart, Co. Armagh, though long considered to be Ogam characters, are now universally pronounced to

* *Journal* Roy. Soc. Antiq., 1872, p. 526.

be nothing more than markings made by persons who utilized the monument as a block for the sharpening and pointing of tools or weapons. The same remark applies in full force to certain scorings and scratches which disfigure a fine pillar-stone standing close to the railway station of Kesh, County Fermanagh, on the right-hand side of the line as you face towards Bundoran. They are found abundantly on the coping stones of the walls of Londonderry, and indeed in other localities too numerous to mention. At Killowen, County Cork, they occur on a stone most significantly called Cloch na n'Arm, or the '(Sharpening) Stone of the weapons.'

CHAPTER III

STONE MONUMENTS (*continued*): CHAMBERED TUMULI.

TUMULUS AT NEWGRANGE—TUMULUS AT DOWTH—TUMULUS AT KNOWTH—CAIRNS AT LOUGHCREW—PREHISTORIC ORNAMENT.

THE *Senchas-na-Relec*, or 'History of the Cemeteries,' a tract in the *Leabhar-na-h-Uidhre*, we have a list of the regal cemeteries of Erin during a long period prior to the advent of St. Patrick. This was compiled at Clonmacnoise, and transcribed by Maelmuiri in the twelfth century. In the opinion of Petrie the tract 'must be referred to a period several centuries earlier than that in which its transcriber flourished.'* It says:—'These were the chief cemeteries before the Faith (*i.e.* before the introduction of Christianity), viz. Cruachu, Brugh, Tailltiu, Luachair Ailbe, Oenach Ailbe, Oenach Culi, Oenach Colmain, Temhair Erann. . . . At Tailltiu the kings of Ulster were used to bury, viz. Ollamh Fodhla, with his descendants, down to Conchobhar, who wished that he should be carried to a place between Slea and the sea, with his face to the east, on account of the Faith which he had embraced.' In the same MS. there is also a poem ascribed to Dorban, a poet of West Connaught, dealing with the

* *Ecclesiastical Architecture*, p. 97.

deaths and burials of Dathi, the last of the Milesian kings, and other princes of the race interred at Rathcroghan. It contains three stanzas:—

> 'Fifty mounds, I certify,
> Are at Oenach na Cruachna,
> There are under each mound of them
> Fifty truly-fine warlike men.
>
> The three cemeteries of the Idolaters are
> The cemetery of Tailten, the select,
> The cemetery of the ever-fair Cruachan,
> And the cemetery of Brugh. . . .
>
> The host of great Meath were buried
> In the middle of the lordly Brugh;
> The great Ultonians used to bury
> At Tailten with pomp.'

Of the cemeteries named but two can be identified with any degree of certainty, viz. those of Brugh na Boinne, the 'Dwelling-place on the Boyne,' now generally acknowledged to be Newgrange, and Cruachan (Rathcroghan), County Roscommon; but there is great probability that Tailten may be the great necropolis situate on the Loughcrew Hills not far from Oldcastle.

Tumulus at Newgrange.—As the size and character of the grave mounds would depend upon the rank of the dead, the magnitude of these monuments of kings and heroes can be readily understood from the MS. evidence. The Tumulus at Newgrange, in County Meath, lying at a distance of about eight miles from Drogheda, is perhaps the most remarkable monument of its class now existing in any part of western Europe. In

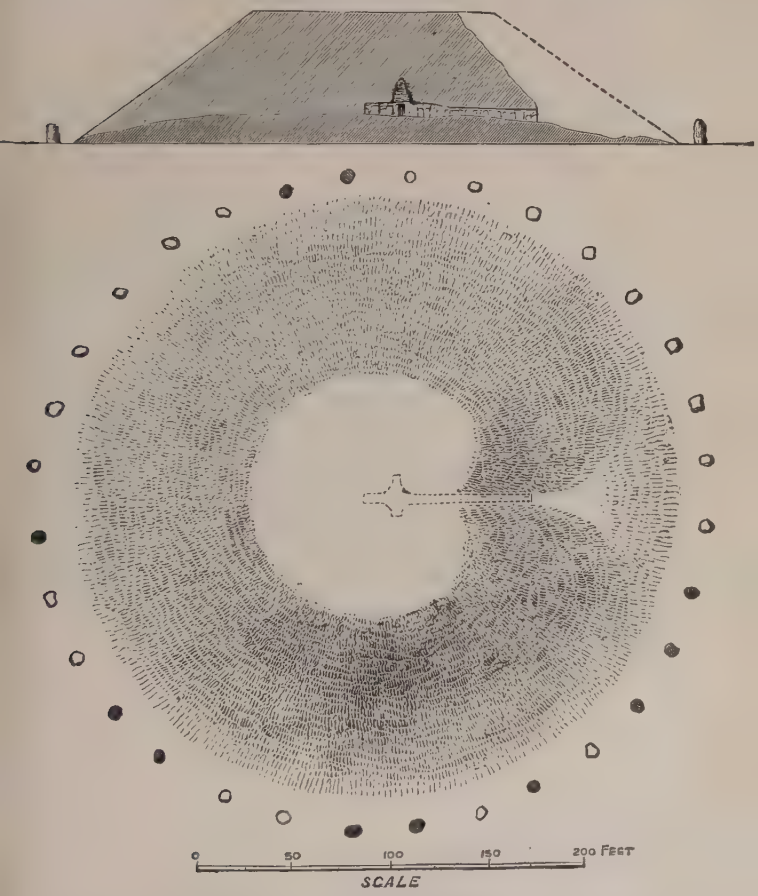
one respect, at least, it may compare with any Celtic monument known to exist, inasmuch as a number of the great stones of which its gallery and chambers are composed, exhibit a profusion of ornamental design, consisting of spiral, lozenge, and zigzag work, such as is usually found upon the ornaments, weapons, fictilia, and other remains of prehistoric times in Ireland.

The Tumulus of Newgrange, Co. Meath.

The earliest account of the tumulus is contained in a letter written by Edward Lhwyd, keeper of the Ashmolean Museum, Oxford, and dated December 15th, 1699. The entrance to the chamber had been discovered a short time before by workmen employed in the removal of stones for the repair of a road. It is recorded, however, in the *Annals of the Four Masters* that Newgrange was plundered by the Danes in 861.

This vast cairn which, even in its present condition, measures from the floor of the inside chamber to the summit 44 feet, and in its greatest diameter 280 feet,

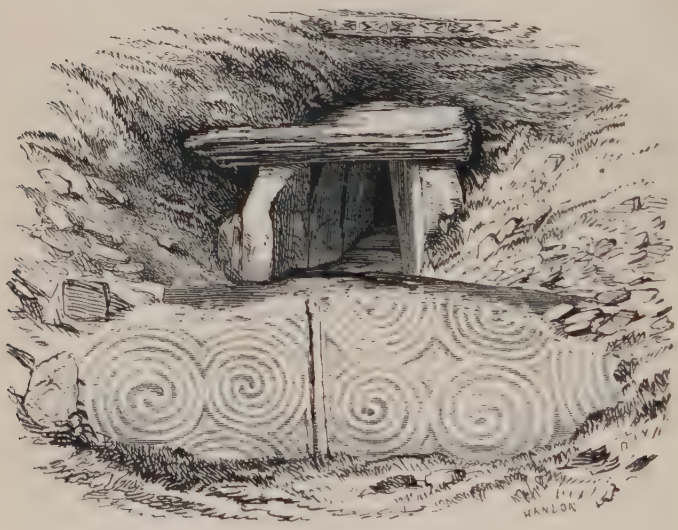
presents, from a little distance, the appearance of a grassy hill partially wooded; but upon examination the



Plan and Section of Newgrange Tumulus.

coating of earth is found to be altogether superficial, and the stones, of which the hill is entirely composed.

can easily be laid bare. The quantity of stones has been estimated at 100,000 tons. The base is surrounded by a belt of large blocks of stones eight to ten feet in length, upon which a dry wall five to six feet in height has been raised. The like method was adopted in some of the great barrows in England, as in Uley, in Gloucestershire. A circle of large stones, of which twelve may

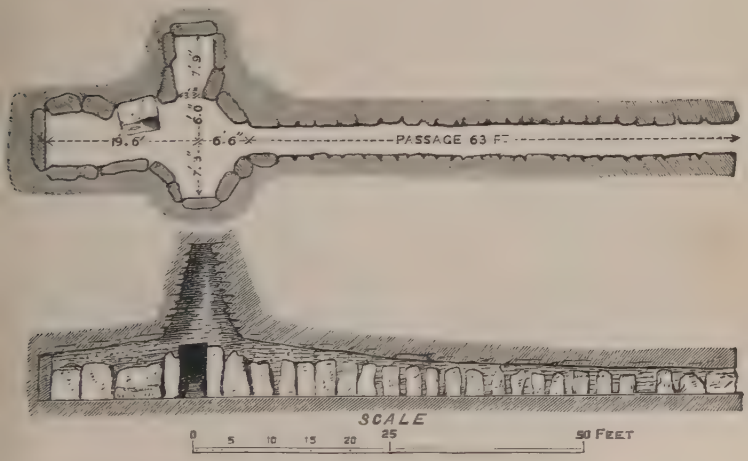


Entrance to the Passage leading to the Great Chamber, Newgrange.

be identified, originally surrounded its base, and when Lhwyd saw it, there was 'another lesser standing on the top.' This pillar-stone no longer exists. The stones stand about thirty feet apart, and if the circle were completed the original number of stones would be 32. The area of the mound is about one acre in extent; but

if the area of the circle within the stones be taken, it would extend to two acres.

The entrance to the gallery is to the south, and across it lies one of the retaining stones, which is beautifully covered with spirals and lozenges; two others, also richly carved, have been discovered in the boundary circle to the north-west. The gallery, which



Plan and Section of Chamber in Newgrange Tumulus.

extends in a direction nearly north and south, communicates with a chamber or cave nearly in the centre of the mound. This gallery, which measures in length 63 feet, is, at its entrance from the exterior, 4 feet 9 inches high; in breadth at the top, 3 feet 2 inches; and at the base, 3 feet 5 inches. These dimensions it fairly retains—except in one or two places where the stones appear to have been forced from their

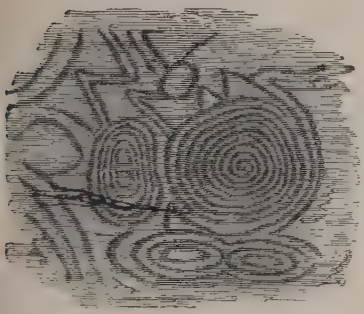
original position—and rises gradually to a height of about 6 feet through a distance of 26 feet from the external entrance. Thence towards the interior its size gradually increases, but sinks to 4 feet 10 inches at 43 feet, and again rapidly rises by the overlapping of the stones until it joins the chamber roof. Large blocks of stone, from 5 feet to 8 feet high, and numbering 22 on one side, and 21 on the other, form the passage. These are Lower Silurian rocks, the formation of the adjoining

Carving on a Stone at the West Recess.

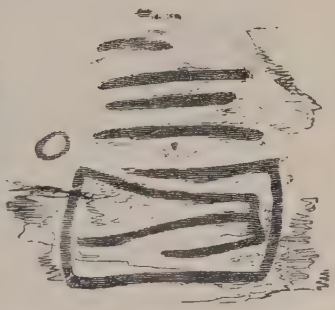
Ornament on the Roof of the East Recess.

district; they show but little traces of the weathering of surface rocks, 'but, on the contrary, even faces, which indicate that they have been split along the cleavage, and care taken in their selection.' The ground-plan of the chamber is cruciform, the head and arms of the cross being formed by three recesses, one

placed directly fronting the entrance, the others east and west, and each containing a basin of granite. The lower portions of the walls of the chamber are composed of large uncemented stones, placed in an upright position, over which are others laid horizontally, each course projecting slightly beyond that upon which it rests, and so on, until the sides so closely approximate that a single flag suffices to close in and complete the roof. The chamber is 19½ feet high, and measures



Ornament on the Roof of the East Recess.



Scoring on Stone in West Recess.

from the end of the gallery to the back of the north recess 26 feet; from the back of the east recess to the back of the west, 21 feet. The recesses are not of uniform size. The east is 7 feet 9 inches in depth, the north 7½ feet, and the west 3 feet 4 inches. The sides of these recesses are composed of immense blocks of stones; several of the stones in the recesses and passage bear a great variety of carving, supposed by some to be symbolical. The carvings represent various characteristic selections in the work upon the roof of

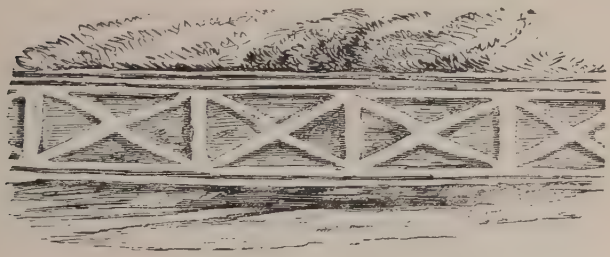
the east recess, in the construction and decoration of which a great degree of care appears to have been exercised. A carving upon a stone forming the north

Carved Stone in East Recess.

Carved Stone in East Recess.

external angle of the west recess is supposed to be an inscription; but even could any satisfactory explanation of it be given, its authenticity is doubtful, as it has been supposed to have been forged by one of

the many dishonest Irish antiquaries of the eighteenth century. The same stone, upon its east face, exhibits what appears to have been intended as a representation of a fern or yew-branch. An ornament of a similar character was found within a tomb at Locmariaker, in Brittany.* It is a remarkable fact that the majority of these carvings must have been executed before the stones upon which they appear had been placed in their present positions. Of this there is abundant evidence in the east recess, where we find the lines continued over portions of the stones



Carved Stone above the Entrance.

which it would be impossible now to reach with an instrument, and which form the sides of mere interstices. The illustrations on page 88 depict some of the decorations which appear upon the sides of the east recess. A stone now lying upon the surface of the mound, a little above the opening already described, is shown in above engraving.

A very remarkable series of carvings is to be seen on a boundary stone on the north side opposite the

* See *Archæologia*, vol. xxv., p. 233.

entrance, consisting of spirals, cup-markings, rings, and 'cartouche-like figures.' 'No examples of these' (the last), says Mr. George Coffey, 'have, I believe, been previously found in Ireland.'

Of the basins contained in the various recesses, that in the chamber, and which stood within the larger basin in the east recess, is the most remarkable. It measures 4 feet by 3 feet 6 inches, and is formed of a block of granite, that must have been brought from the nearest granite district, either Down or Wicklow, a distance of over 50 miles. Two small circular cavities have been cut within its interior—a peculiarity not found in either of the others, which are of much ruder construction, and very shallow.

We see in Newgrange a great advance in the architecture of sepulchres from the rude cromlechs of the Stone Age to the well-developed vaulted chamber, with its recesses, of the Bronze Period. But the principle of the rude passage-graves is maintained; and the desire to honour the dead under the most appropriate monument that art and skill could raise remains the same. Within the chamber and recesses the relics of the dead were most probably placed on the basins—a purpose for which these were apparently adapted.

The general plan of Newgrange is similar to the bee-hive tomb at Mycenæ, known as the Treasury of Atreus, but differing in size, detail, and general magnificence. This great tomb consists of a long passage, a large vaulted chamber—formed of successive courses of stones laid horizontally and closed with a single slab—and a square recess. In the centre of the

rocky floor of the recess is a circular depression 3 feet in diameter and 2 feet deep. Dr. Schuchhardt is of opinion that this was the actual grave, that the recess was never opened but to admit another body, while the great vault was devoted to the cult of the dead. 'It was and remained easily accessible; the rich façade and the expensively-built approach conclusively show that the entrance to the vault was not blocked up after the reception of the bodies.'* Other authorities consider that this was not the case, but that the central chamber was the tomb for the family, and the side chamber for specially distinguished persons and chiefs.† Whichever view we accept, it is at least suggestive of the purpose for which the Newgrange type of sepulchre was planned.

In the neighbourhood of the Newgrange tumulus are two other monuments of the same class, and of an extent nearly equal, the 'Hills' of Dowth and Knowth; or, as they are called by the Irish, Dubhath and Cnoabh, the latter lying about one mile to the westward of Newgrange, and the former at a similar distance in the opposite direction.

Tumulus at Dowth.—This sepulchral mound corresponds closely to Newgrange in dimensions; it is about 47 feet high, and measures 280 feet in diameter. Round the base is a belt of large stones as at Newgrange; but it has no retaining wall. A double circle

* *Schliemann's Excavations*, by Dr. C. Schuchhardt (1891), p. 147.

† *The Mycenæan Age*, by Dr. Christos Tsountas and Mr. J. Irving Manatt (1897), p. 138.

of stones appears to have surrounded the cairn. Of these the greater number lie buried; for in summer-time their position, particularly after a long continuance of sunny weather, is shown by the remarkably dry and withered appearance of the grass above them. Of the internal arrangement of this great tumulus, little was known beyond the fact that it was different from that of the monument last described, inasmuch

Tumulus at Dowth, from the South.

as, instead of one great gallery leading directly towards the centre of the pile, there appeared here the remains of two passages in a very ruinous state, and completely stopped up, neither of which, however, seemed to have conducted towards a grand central chamber. The Committee of Antiquities of the Royal Irish Academy having, in the course of the autumn of 1847, obtained permission from the trustees of the Netterville Charity,

the proprietors of the Dowth estate, to explore the interior of the tumulus, the work was commenced and carried on at considerable cost, under the immediate direction of Mr. Frith, one of the county surveyors. Unfortunately no official record of the work done has been kept, and the only account of it is a brief one by Sir Wm. Wilde. Commenting on this, Mr. George Coffey says: 'The mound was so pulled about by the explorers, and the work carried out with such doubtful wisdom, that the Committee seem to have had a not unnatural shrinking from publicity.' From the difficulty of sinking a shaft among the loose, dry stones of which this hill, like that of Newgrange, is entirely composed, the plan was adopted of making an open cutting from the base of the mound towards its centre, in order to arrive at the great central chamber which was supposed to exist. The first discovery was that of a cruciform chamber upon the western side, formed of stones of great size, every way similar to those at Newgrange, and exhibiting the same style of decoration. A rude sarcophagus, bearing a striking resemblance to that belonging to the east recess at Newgrange, was found in the centre. It had been broken into several pieces, but the fragments were all recovered and placed together, so as to afford a perfect idea of the original form. In clearing away the rubbish with which the chamber was nearly filled, the workmen discovered a large quantity of the bones of animals in a half-burned state, mixed with small shells. A pin of bronze and two small knives of iron were also picked up. With respect to instruments

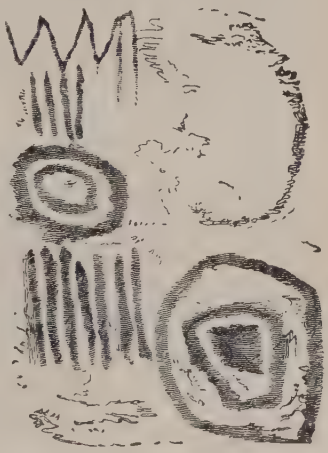
of iron being found in a monument of so early a date, we may observe that, in the *Annals of Ulster*, there occurs a record of this mound, as well as of several others in the neighbourhood, having been searched by the Northmen of Dublin as early as A.D. 862: 'On one occasion that the three kings,

Entrance to the Passage leading to the Chamber of Dowth.

Amlaff, Imar, and Ainsle, were plundering the territory of Flann, the son of Coaing.' It is an interesting fact that the knives are similar in every respect to a number discovered, together with a quantity of other objects, in the bog of Lagore, near Dunshaughlin, and which there is reason to refer to a period between the ninth and the beginning of the eleventh centuries. Upon the chamber being cleared out, a passage 27

feet in length was discovered, the sides of which incline considerably, leading in a westerly direction towards the side of the mound, and composed, like the similar passage at Newgrange, of enormous stones placed edgeways, and covered in with large flags. The chamber, though of inferior size to that of Newgrange, is constructed so nearly upon the same plan, that a description of the one might almost serve for that

Carving on a Stone at Dowth.



Carving on a Stone at Dowth.

of the other. It is 9 feet by 7 feet and 11 feet high. There are three recesses between 5 and 6 feet deep; these, however, do not contain basins. The south recess leads into a double set of chambers, one extending south and the other west. A single stone 8 feet long forms the floor of the south passage, in the centre of which is a shallow oval 'apparently rubbed down with some rude tool.' A huge stone, in height 9 feet,

in breadth 8 feet, placed between the north and east recesses, is remarkable for the singular character of its carving. A portion of the work upon this stone bears a resemblance to Ogam writing.

Another sepulchral chamber, of a quadrangular form, portions of which show a great variety of carving, among which the cross, a symbol which neither in the old nor the new world can be considered as peculiar to Christianity, is conspicuous, has been discovered upon the southern side of the mound. Here, as elsewhere, during the course of excavation, the workmen unearthed vast quantities of bones, half-burned, many of which proved to be human; 'several unburned bones of horses, pigs, deer, and birds, portions of the heads of the short-horned variety of the ox, and the head of a fox.' They also found a star-shaped amulet of stone, a ring of jet, several beads, and some bones fashioned like pins. Among the stones of the upper portion of the cairn were discovered a number of globular balls of stone, the size of small eggs, which Sir W. Wilde supposed probably to have been sling stones. Further excavations under the direction of the Board of Works (1885) led to other discoveries. An opening was made on the north side of the known entrance that 'led to a passage which terminated at either end by circular cells carefully roofed with corbelling stones'; and, where it met the entrance to the originally known chamber, a flight of steps was discovered. This and the character of the work, which is microlithic, indicate the portion of the underground passages and chambers to be a much later addition.

Among the trees between the mound of Dowth and

the mansion are two smaller tumuli. One of these is open from the top; it contains a corbel-roofed chamber 10 feet in diameter and 8 feet high; round it are five cells constructed of small flags set upright. A little to the east of the house is a fine specimen of the ancient military encampment or rath, one of the largest in Ireland.

Tumulus at Knowth.—The other great tumulus (Knowth) of the Boyne group has probably never been entered since the time, as the Annalists tell us, it was plundered and doubtlessly much injured by the Danes. It is nearly 700 feet in circumference, and between 40 and 50 feet in height. For many years it has served as a convenient quarry for builders of houses and repairers of roads. That it could be explored at little cost is certain, as, owing to the denudation it has suffered, the passage or gallery leading to its chamber has, in part, been laid bare. Its circle or circles are not altogether obliterated; and here and there some portions remain which show that the work, though less massive than that of Newgrange, was at least as striking as anything to be found in Dowth, or in connection with the remains at Loughcrew, or others occurring in the western districts of Ireland.

Among the objects found about the tumuli Lhwyd mentions a gold coin of Valentinian, said to have been discovered on the top of Newgrange; Molyneux mentions a similar coin, and one of Theodosius, as being found outside the cairn. A gold chain, two finger rings, and two gold torcs were found in 1842 close to the entrance

of Newgrange; and on further search a denarius of Geta and two small brass, but defaced, coins were also found. Too much caution cannot be used in considering these as evidence in determining the date of the tumuli. A bronze pin, a ring pin, and a small iron weapon were found in the chamber discovered in Dowth in 1885. If, as seems certain, this chamber and passage are of much later date than the tumulus itself, the presence of these objects is easily accounted for. A discussion of the evidence upon which expert opinion is based, as to the date of these monuments, is outside the province of this book. It takes into consideration the character of the architecture, the nature of the ornamentation, and the objects found. Weighing these, the Boyne tumuli are assigned to the Early Bronze Period, and Newgrange is considered the oldest of the group.

Cairns at Loughcrew. — Loughcrew is a range of picturesque hills, three miles south-east of Oldcastle. The ridge of the range is about two miles in extent, and there are three chief heights: Slieve-na-Calliaghe, 904 feet; Patrickstown Hill, 885 feet; and Carnbawn, 842 feet: but the name of the first is generally applied to the whole range. Here, within the radius of a rifle-shot, may be seen grouped together the most extraordinary collection of archaic monuments to be found in the kingdom. These for the most part consist of megalithic sepulchres surmounted by tumuli, and surrounded by stone circles. These number 'from 25 to 30 cairns, some of considerable size, being 120 to 180 feet in diameter; others are much smaller, and some are so nearly obliterated

that their dimensions can hardly be now ascertained.' It is, we think, not too much to say that on the stones among these cairns is found the greatest collection of rude prehistoric scorings yet found in Ireland or, perhaps, in Europe.

Popular superstition has long attributed these cairns and other remains to be the work of a witch named Cailleach Bhéartha, who, in attempting a wild leap in the adjoining townland of Patrickstown, was unfortunate enough to fall and break her neck. Nothing was known of the character or contents of these cairns until 1858. In the autumn of that year Mr. Wakeman measured and made plans of several of the remains, and wrote a paper upon the subject, which was read in his name before the Architectural Society of Oxford, by J. H. Parker. We are thus particular in giving names and dates in connection with the *first* public notice of the antiquities at Slieve-na-Calliaghe, as their 'discovery' was claimed and is still erroneously attributed to the late Eugene Conwell. He, however, did great service to Irish archæology, inasmuch as, with the liberal co-operation of the late J. L. W. Naper, owner of the soil, he was enabled to clear out the majority of the chambers, and investigate what had been left by former searchers of their contents. An immense amount of *débris* was removed, and stones which had been buried for ages were brought to light. Many of the latter are singularly carved, and some presented designs previously unknown to archæologists. The result of Conwell's investigations was given in papers read before the Royal Irish Academy in 1864 and

1866, accompanied with an index map of the cemetery, in which the letters of the alphabet indicate the cairns.* These, however, were of a sketchy nature, and the voluminous report, with the plans and sketches which he had prepared, seems never to have been published. A series of drawings of the incised markings on some of the stones of the chambers were prepared by Du Noyer; these remained unpublished until recent years, when a collection of seventy-six drawings and plans of six of the cairns fell into the hands of the late Dr. W. Frazer, and were reproduced by the Society of Antiquaries of Scotland.†

The idea seems to have struck Fergusson, who at least on one occasion accompanied Conwell to the place, that the Loughcrew monuments represented the once famous, but long-forgotten, cemetery of Taillten, a place which was supposed to be represented by the modern Teltown, about fifteen miles distant. After weighing the evidence in reference to the supposed identification, Fergusson writes:—'If, however, this is not Taillten, no graves have been found nearer Teltown which would at all answer to the description that remains to us of this celebrated cemetery; and till they are found, these Loughcrew mounds seem certainly entitled to the distinction. I cannot see that the matter is doubtful.'‡ According to the *Annals of the Four Masters*, numerous were the kings and nobles here buried. The first whose name is mentioned is

* See *Proceedings* Roy. Ir. Acad., vol. ix.

† *Proceedings* Roy. Ir. Acad., vol. xxvii. (1892–93).

‡ *Rude Stone Monuments*, p. 219.

Ollamh Fodhla, son of Fiacha Finscothach, and founder of the Feis at Tara. Eochaidh was his first name, and 'he was called Ollamh (Fodhla), because he had been first a learned Ollamh, and afterwards king of Fodhla, *i.e.* of Ireland.' The 'Four Masters' set down his death as having occurred in 1277 B.C. The oldest and most trustworthy authorities state that Taillten ceased to be used as a cemetery on the death of Conchobhor, an Ultonian king, who flourished in Erin at the commencement of the Christian era, and who, according to the *Annals of Tighernach*, died A.D. 33.

In seventeen of the cairns sculptured stones have been found to the number of 100. Cairn T has 28 stones with scribings, the largest number yet noticed in any of the group. We can only briefly refer to the contents of some of these cairns, which represent, as we have said, the largest and most varied collection of inscribed stones hitherto found in any Celtic monument. The largest is cairn D, which measures 180 feet in diameter; no trace of interment has yet been found within it, and it may have been merely monumental.

Cairn H is 5 or 6 feet high and 54 feet in diameter. Here Conway collected 300 fragments of bones, 14 of rude pottery, 10 pieces of flint, 155 sea-shells, and quantities of pebbles and polished stones. But the most remarkable portion of the collection consisted of nearly 5000 pieces of bone implements, many more or less perfect, several of which were engraved in Late Celtic pattern, as were many portions of combs. In addition to this collection, beads of amber and glass,

bronze rings, and iron implements were found, and a recent examination has added to these.

Cairn L is 135 feet in diameter, and has a circle of 42 stones set on edge, varying from 6 to 12 feet in length, and 3 to 4 feet in height. It is chambered, and the roof fashioned by overlapping stones similar to that of Newgrange. The passage and chamber have a combined length of 29 feet, and the latter is 13 feet in width. On the floor of the passage is a flagstone, measuring 8 feet 9 inches by 3 feet 6 inches; and in one of these recesses is the largest and best finished stone basin yet discovered, measuring 5 feet 9 inches by 3 feet 1 inch. Fragments of pottery to the number of 154 were found, and under the basin pieces of burnt bone and many human teeth.

Cairn T is the most conspicuous monument of the group; it measures 116 feet in diameter, and rises with sloping sides to a height of 21 feet. It contains a recessed chamber, like that at Newgrange, in miniature, the entrance to which faces due east, and is reached by a shallow, funnel-shaped passage. Round the base is a closely-set circle of 37 stones, varying from 6 to 12 feet in length, and acting as a kind of retaining fence to the loose, dry boulders which form the body of the tumulus. One of these stones on the north side is popularly known as the 'Hag's Chair' (see p. 39). Fergusson states there can be little doubt that it was intended as a seat, or throne, but by whom it was raised and for what purpose it is difficult to say. When opened in 1865 the roofing of the passage and

much of the chamber had fallen away, leaving them filled with stones; the combined length is 28 feet, and the full width of the chamber is 16 feet 4 inches. The floor of the central octagonal chamber was covered by three large and two small flags, beneath which were found pieces of burnt bone and charcoal. It has three recesses, about 4 feet square.

Conwell, without the slightest authority, rushed to the conclusion that this particular monument must be the tomb of Ollamh Fodhla, and that the chair cannot be other than the judicial seat, or throne, of that famous king. He writes: 'And to whom, keeping in view the preceding MS. testimony,* could this great megalithic chair be more appropriately ascribed than to Ollamh Fodhla? It would be natural to suppose that, for the site of the tomb of the great king and law-maker, his posterity (or, indeed, probably he himself, during his own lifetime) selected the most elevated spot on the entire range; hence we propose to call the carn on that spot—904 feet above the sea-level, and situated on the middle hill—Ollamh Fodhla's tomb, and the great stone seat "Ollamh Fodhla's Chair"; and the ruined remains of the smaller surrounding cairns, six of which still remain, the tombs of his sons and grand-sons, mentioned in the previous extracts. In fact, on the summit of the highest hill in the site of this ancient royal cemetery, we believe there still exist the remains of the tombs of the dynasty of Ollamh Fodhla'!

The construction of these chambered tumuli, so peculiar to our eyes, had its origin in the primitive

* The MSS. only state that the Ollamh was buried at Taillten.

mound-dwelling, survivals of which are still to be found among the Lapps inhabiting the extreme north of Scandinavia. Here, as Mr. Arthur Evans points out, 'are the ring-stones actually employed in propping up the turf-covered mound of the dwelling, and there is the low entrance gallery leading to the chamber within, which, in fact, is the living representative, and at the same time the remote progenitor, of the gallery of the chambered barrow.' The bee-hive tombs of Mycenæ are traced back by Professor Adler to Phrygia. Here, according to Vitruvius, the dwellers in the valleys dug a circular pit, raised a cone-shaped chamber with posts, covered it with weeds and branches; over all they piled a heap of earth, and cut a passage into the chamber from without. Of this Dr. Schuchhardt says: 'The analogy is certainly significant. Men in all ages have fashioned the dwellings of the dead in accordance with those of the living; but the dead are conservative, and long after a new generation has sought a new home and a new pattern for its houses, the habitations of the dead are still constructed in ancestral fashion.'*

The distribution of the spiral, which is so remarkable a feature at Newgrange, has in recent years received much attention from European archæologists. It was used in Egypt at a very early period. Dr. Flinders Petrie has discovered it on scarabs dating as far back as the fifth dynasty. It is now thought that the spiral reached Europe from Egypt northwards through the Ægean. Mr. A. J. Evans has found it in Crete on

* *Schliemann's Excavations*, p. 151.

CITY ... PUBLIC LIB

scarabs of the twelfth dynasty (2700–2500 B.C.), but its adoption in Mycenæan ornament from this early wave northward is doubted. Dr. Petrie considers that the intermediate stages so evident in Egypt are absent in Greece.* Evidence seems to show that its development in Greece was due to a wave of influence from Egypt during the eighteenth dynasty (1580–1320 B.C.). In Greek hands it attained the same degree of perfection as in Egypt, and has been found elaborately decorating the stelæ, gold ornaments, and vessels in the tombs of Mycenæ, in the alabaster frieze at Tiryns, and in the slabs of the ceiling of the tomb at Orchomenos.

Mr. Evans says: 'In the wake of early commerce the same spiraliform motives were to spread still further afield to the Danubian basin, and thence in turn by the valley of the Elbe to the Amber Coast of the North Sea, then to supply the Scandinavian Bronze Age population with their leading decorative designs. Adopted by the Celtic tribes in the central European area, they took, at a somewhat later date, a westerly turn, reached Britain with the invading Belgæ, and finally survived in Irish art.'† But there is much to support the theory that the spiral reached Ireland from Scandinavia, and not by the direct western route, as communication existed between the races from a very early date. This view is maintained by Mr. George Coffey, who discusses the subject of prehistoric ornament in Ireland in a series of papers

* *Egyptian Decorative Art*, chap. ii.

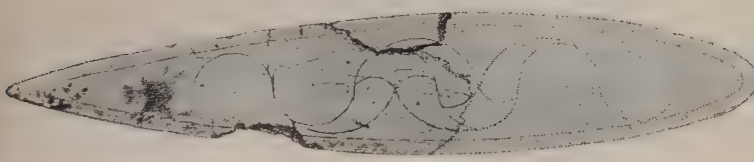
† *Journal of Hellenic Studies*, xiv., p. 329.

contributed to the *Journal* of the Royal Society of Antiquaries (Ireland).* He also accepts the theory, advocated, too, by Prof. Montelius, that the concentric circle is a debased spiral; and is of opinion that, where both are found, the spiral is the earlier form of the two. The distribution of the spiral is very widespread, and even the returning spiral has been used by the Maori in facial decoration and otherwise for a long period. The spiral is a form that would come under the notice of primitive man anywhere; and it is quite possible in such things as this, as in myths, customs, and objects common to most races, to push theory too far in one direction. But the spread of the spiral ornament throughout Europe, as the result of Mycenæan influence, receives confirmation by similar parallels being established in connection with other important branches of archæological research.

Many archæologists have hitherto been of opinion that the sculpturings on the rocks composing these sepulchral chambers are symbolical; but no satisfactory explanation has yet been given of their religious significance. Some, however, consider that they are mere ornament, and that in no sense have they a cryptic meaning. Many of the stones from the position in which they are now placed, as we have already pointed out, must have been carved beforehand, and may probably have served some other purpose at an earlier period. It is easily seen that the same ornamentation exists on many objects to which no symbolism could be

* See *Journal*, 1894, 1895; also *Trans.* Roy. Ir. Acad., vol. xxx. pt. 1, xxxi. pt. 2.

attached; there is an absence, too, of all idea of method in design, and a want of unity in combination, which are against any theory except that of primitive man's mere desire to decorate. Though much has been written on the question, yet, in the present state of our knowledge, it is impossible to arrive at a definite conclusion upon the subject.



Ornamented Bone Flake from Slieve-na-Calliaghe.

CHAPTER IV.

STONE MONUMENTS—*Continued.*

THE DEERPARK MONUMENT—CAIRNS—MISCAN MAEVE—CAIRN'S HILL—HEAPSTOWN—THE 'BARR' OF FINTONA—BIGHY—STAR-SHAPED CAIRN AT DOOHAT—MOUNDS—STONE CIRCLES—NEWGRANGE—NEWTOWNBUTLER—BALLYNOE (LEGAMADDY)—SLIEVE-NA-GREIDLE—LOUGH GUR—ALIGNMENTS—TOPPID MOUNTAIN—CALLERNISH—DARTMOOR.

THE *Deerpark Monument.*—The interesting megalithic monument in the Deerpark, Hazlewood demesne, four miles east of Sligo, differs from any other known monument in the British Isles. It is known as Leacht Con Mic Ruis, the 'Stone of Con the son of Rush,' and more than one visionary archæologist has styled it the 'Irish Stonehenge.' The structure consists primarily of an oblong, or blunted oval, figure, formed of rude, undressed stones, generally of considerable length and thickness, and averaging but 2 or 3 feet in height. This central area extends, as nearly as possible, east and west. Its extreme length is 50 feet 6 inches; its greatest diameter 28 feet. From the western end extends an oblong compartment, constructed of stones similar to those forming the oval, measuring 27 feet in length by 12 feet 6 inches in breadth. The entrance to this extension is by a kind of portal, the sides of which

consist of two rude, unhewn stones, about 3 feet in height. These are surmounted by a horizontal lintel, about 8 feet long, and 2 feet 6 inches in thickness, forming a low but perfect trilithon. Fergusson, in his *Rude Stone Monuments,* very incorrectly states that these stones, like those forming two other similar entrances, have been 'squared and partially dressed.'

Plan of the Deerpark Monument, Co. Sligo.

The western apartment is divided by two projecting stones, which may have been capped with a lintel. The space between them is barely sufficient to allow the passage of a moderately-sized man. This end of the monument is composed of two stones of great size, the outermost leaning against its neighbour. They are about 7 feet in length, 2 feet in thickness, and over 6 feet in height. Immediately adjoining, and touching them, to the westward, are the remains of a stone circle, about 20 feet in diameter, the area of which was probably occupied by a low cairn or mound. The spot, however, has been so tossed about that little of its

original character remains. The same remark applies to the state of a similar circle found at the eastern termination of the monument. At the eastern extremity of the central enclosure are two projections, precisely similar in style to that at the opposite end. They are entered by trilithon openings, the height from ground to lintel measuring about 3 feet, and the height to the upper surface 5 feet. These prolongations, which have been absurdly styled 'aisles,' run parallel to each other, one measuring 27 feet in length, while its companion, that to the south, is 3 feet shorter. Both are divided into two compartments, of unequal size, by projecting stones. There is a space between them, 5 feet 6 inches broad, but separated from the main oval by an immense block of stone.*

This monument was long a puzzle to archæologists. 'At present it is unique,' wrote Fergusson; 'if some similar example could be discovered, perhaps we might guess its riddle.' It remained for Colonel Wood-Martin to explain the character of this 'Irish Stonehenge.' 'Excavations,' he writes, 'made in the four smaller divisions, at the eastern and western extremities of the monument, clearly demonstrate the fact that they *had been formerly covered like ordinary kistvaens with roofing slabs*, as these were found lying in the ground in a fragmentary state, when the sod was turned up. In these four excavations human and animal bones were discovered, all uncalcined. With them was a flint flake. Explorations in the central enclosure were not attended

* A somewhat similar example occurs in the sepulchral monument at Glenmalin, Co. Donegal. See *Journal* Roy. Soc. Antiq. Ir., 1890, p. 264.

with equally decisive results; for although in two instances some traces of osseous remains were found, yet in other spots the soil appeared to be undisturbed. The conclusion, therefore, may be safely drawn that the eastern and western "aisles" are simply uncovered kistvaens; that they were erected when inhumation burial was practised, and when flint instruments were in use; but whether the central enclosure had been used for burial, or merely for ceremonial observances before committing the bodies to the tomb, could not be determined with any degree of certainty.'*

The osseous remains found in various parts of the monument were submitted to the judgment of several experts, who pronounced them to be mostly human, and to have belonged to persons of various ages. Some were evidently those of young children. The bones of the lower animals noticed comprised those of deer, of the horse (apparently), and some of swine. There were also bones of rabbits and hares, as likewise some of birds. All seemed to be strangely mixed together; but the remains in no instance exhibited the action of fire. It is probable that the interments were neolithic, and the animal bones the relics of the funeral feast. The flint flake 'shows traces of careful chipping for a short distance round the segment of a circle which forms its cutting edge, the remainder of the tool being left in a rough unfinished state, with thick blunt sides.' It belongs to the class of articles described by Sir W. Wilde as approaching in form, but not altogether taking the shape of, a stone celt.†

* *Rude Stone Monuments of Sligo*, p. 136. † *Catalogue of Antiq.*, p. 27.

Miscan Maeve.—On the summit of Knocknarea, which commands a fine view over the coast of Sligo and surrounding country, is a great cairn composed of small stones, and locally known as 'Miscan Maeve,' or 'Misgaun Meaw.' The cairn is oval-shaped, and measures 590 feet in circumference and 34 feet in height; the sides slope to 79 feet on one side and 67 feet on the other. The top has a major axis of 100 feet and a minor of 85 feet. According to tradition this is the

Cairn, on Cairn's Hill, Co. Sligo.

burial-place of Maeve (the Mab of English folk-tales), a celebrated Queen of Connaught, who reigned in the first century. Evidence, however, goes to show that she was buried at Rathcroghan, and the cairn at Knocknarea may have been raised to her memory. There are two cairns on the summit of two hills overlooking Lough Gill, a couple of miles east of Carrowmore. That on *Cairn's Hill* is about 180 paces in circumference, with a summit diameter of 36 paces; it seems originally to have been terraced. The other,

on Belvoir Hill, was about the same dimensions, but it is in a more ruinous condition. From their construction, and the remains found, they were no doubt sepulchral.

Monument at Heapstown.—At Heapstown, not far from Ballindoon, Co. Sligo, is a gigantic pile of stones, said to have been raised in the fourth century of our era over Oliolla, son of Eochy Moyvane, Ard-righ, *i.e.* 'Chief king' of Erin. The extreme circumference of this great work, which the peasantry assert was erected in one night, is stated to be 62 statute perches. Nothing certain is known of its history; and the story of its having had any connection with Oliolla is probably as true as that embodied in the popular legend.

Cairn and Cists at the 'Barr' of Fintona.—It is necessary here to notice a few minor typical yet interesting sepulchres, some of which it would appear had been left undisturbed and unnoticed until recent years. One of the most instructive of these occurs at the 'Barr' of Fintona, about three miles north of Trillick, Co. Tyrone. The cairn was found to consist of a mound of stones, rising to a height of about 8 feet above the then level of the surrounding bog. It was quite circular in plan. Resting upon the ground, and just within the outer edge of the pile, were eight cists, each of which had the appearance of a small cromlech. Four of these chambers enclosed portions of the human skeleton; and in two of them, in addition to the remains of man, was found an urn of baked clay. All within the principal urn-bearing cavity was perfectly

dry and undisturbed. The floor was flagged, and here and there lay human bones in various stages of decomposition. With them were found three vertebræ of a small mammal, probably those of a dog. A fine, richly-decorated urn, evidently a food-vessel, lay on its side in the middle of the enclosure, resting upon a large, clean slab of sandstone. One of the cists lay on the north-east side of the mound. It was oblong in form, 2 feet 4 inches in breadth by 3 feet 6 in length. The sides and bottom were neatly flagged. This grave was reached with difficulty, as it proved to be secured by two ponderous covering stones, one laid immediately over the other. Upon the floor, cushioned in damp dust, lay the remains, or portions of the skeletons, of two human beings, white and clean, as contrasted with the dark-brown colour of their kindred mould. There were but a few other fragments of bones beside the crania, and these were removed to the Museum of the Royal Irish Academy. There were no traces of the lower jaws, nor even of teeth. From the narrow proportions of the cist, it was quite manifest that no two perfect human bodies, even those of very young people, could have been deposited there. The space was far too limited to have contained even one unmutilated corpse. The bones exhibited no trace of the action of fire, and were unaccompanied by traces of charcoal or ashes of any kind. On the mould which lay on the floor being carefully sifted, no bead, flint-flake, or manufactured article of any description was discovered; and as the bottom and sides of the cist were composed of cleanly-split sandstone, it was

evident that nothing but human remains had been entombed there—unless, indeed, we may suppose that an earthen vessel, or similarly perishable object, had crumbled into dust amongst the animal matter.

At a point in the circumference of the cairn which may be described as lying south-east from the centre, was a simple cist of quadrangular form, measuring 17 by 18 inches; its depth was 18 inches. The little chamber was found to contain some traces of grayish earth, somewhat like lime-mortar; this occurred here and there in the generally darker mould, and had the appearance of being a decomposition of human or other bones. A cavity precisely similar in formation, but somewhat smaller, lay in the circle, at a distance of about 9 feet from the cist last noticed. This also yielded nothing of interest. Upon the north-west side of the cairn were two cists, which in the temporary absence of the explorer were dug up by treasure-seekers and others. The havoc here perpetrated by ignorance is greatly to be lamented, as in one of the cists an ornamental vase had been found, one fragment of which Mr. Wakeman was fortunate enough to recover. In connection with this vessel was discovered a beautifully formed flint knife. When perfect, as originally found, it measured $3\frac{3}{10}$ inches in length, by $1\frac{1}{2}$ inches at its broadest part. The blade was extremely thin, and exhibited on one side a central ridge, the other surface being flat or slightly convex. Like most implements of its class, it presented admirably chipped edges. The colour was dark-gray, and the instrument showed no evidence of its having been submitted to the action of fire.

Another grave lay nearly midway between the first described and the more northern of the two which had been shattered by the treasure-seekers. It also was in all but utter ruin, owing partly to the dampness of its position, and perhaps in some degree to the comparatively inferior material of its component parts. The contents presented human bones—those of adults—so soft and decomposed as not to bear the slightest touch. They suggested the idea of softish mortar, or of putty. No artificial object was here found, though everything was done to bring to light any deposit which might have accompanied the bones. A trench was excavated from the northern side through more than half the diameter of the cairn; but no central cist or chamber was discovered.*

The importance of the discoveries made at the 'Barr' in their bearings upon more than one archæological question will doubtless, by a careful reader, be acknowledged. Whether the human remains there found, apparently huddled together in cists not sufficiently large to have contained an entire adult body, were those of victims immolated during the celebration of sepulchral rites, or whether they were relics of persons slain in battle, buried, and subsequently disinterred for final sepulture in the territory of their people or ancestors, are questions which it would be very difficult to decide.

Cairn and Cists at Bighy.—In some respects this is a very remarkable burial site. It stands on the lands of

* See *Journal*, R. S. A. I., 1870, p. 579.

Bighy (a modification of the Irish word *Beithigh*, which signifies 'Birch-land'), on a shoulder of Bennaghlin, a mountain almost overhanging Florencecourt. It is a cairn composed of sandstone, perfectly circular in plan, with a central chamber, and a number of cists, placed almost equally distant from each other, and ranged just within the outer edge of the mound, which measures 50 feet in diameter, and is at present about 10 feet high. The central chamber is of an oval form, 6 feet by 4 feet, and 4 feet in height. It is covered by two large flagstones and a number of smaller ones. Its greater axis extends exactly east and west. Of the surrounding cists—probably eighteen in number—but three remain in a tolerably fair state of preservation. The largest of these is of a bee-hive form; it is quite circular, and measures 3 feet 6 inches in diameter. Its height was probably 4 feet, but, from the disturbed state of the floor, there was difficulty in taking a very accurate measurement. Of the other cists, which are slightly smaller, two presented a rudely quadrangular plan, and were covered by stones laid horizontally. With considerable difficulty, owing to the shaky state of the walls, Mr. Wakeman carefully searched these cists, finding in all of them small portions of calcined bones, accompanied by wood charcoal. In the larger and more perfect chamber, situated to the south-west of the mound, was found, imbedded amongst a quantity of charcoal and burned bones, the base of a cinerary urn, 2¾ inches in diameter. It appears to have been quite plain. No other portion of this vessel was discoverable, and it was quite manifest that this cist,

as well as the others in the mound, had been very roughly handled by seekers for the proverbial 'crocks of gold,' perhaps on many occasions. Elsewhere in the country, cairns exhibiting a somewhat similar arrangement of cists may be found; but the description here given of two representative examples must suffice.

The star-shaped Cairn of Doohat.—Doohat, the land upon which this monument is situated, will be found marked on the Ordnance Map just three and a half miles due south of Florencecourt. It is two miles from Bighy, on the opposite side of Bennaghlin mountain. The name of the site upon which it stands, Doohat—Irish, *Dumha Ait*, 'Place of the sepulchral tumulus'—sufficiently explains that at one time its character had not passed out of local recollection. The plan of the work is, as far as we know, unique in Ireland, representing the star-fish, with five rays projecting from a central body or chamber of the usual 'giant's grave' class. To the south of the chamber, and apparently forming a portion of the original design, occurs a semicircular ridge of stones. This feature is constructed in the same manner as the rays, and differs from them only in form and want of connection with any other portion of the cairn. To a fanciful mind the plan, on the whole, would most readily suggest the idea of a star and crescent. The rays are well-defined stony ridges, averaging 16 or 17 feet in breadth at their junction with the central cist, or dolmen, from which point they taper off to distances of 60, 46, 42, and 40 feet, respectively.

They terminate very sharply with one, two, or three stones. The largest terminal stone—that which finishes the north-western ray—measures 3 feet 6 inches by 2 feet. The main chamber, which extends north and south, is divided by stone partitions into three compartments, of which the central one, measuring 8 feet by 4 feet internally, is the largest. From its north-west angle a rudely quadrangular offset, about 3 feet on the sides, projects westwards. This tomb differs in no respect from a number of 'giants' graves which are found in various parts of the country. No trace of covering slabs, if any such were ever used to overlap the chamber, can be discovered within or without the quadrangles; and it is not in the least likely that any considerable portion of the work has been removed. There is an over-abundance of stones, large and small, in the immediate neighbourhood ready at hand; and there are no buildings near which could have been furnished with materials from this source. This chamber was carefully excavated down to the 'till,' or undisturbed yellow clay, without finding any relics of the past beyond small pieces of wood charcoal, stones showing the action of fire, very dark-coloured, unctuous earth, and here and there some grayish matter, which may have been bone in the last stage of decomposition. Having carefully re-filled all the pits necessarily made during the search, even replacing the rubbish which had fallen or been thrown into the chambers, the work was left in the same condition as that in which it had been found.

A number of small cists were then examined, some

fifteen in all, which lie in the various rays. Most of these diminutive receptacles had evidently been previously searched. Of the six into which the spade was introduced, four yielded small pieces of calcined bone, burned earth and stones, black, greasy clay, and considerable quantities of charcoal. There was much osseous sediment, resembling gray turf ashes well moistened with water. The cists had, doubtlessly, all been originally covered by flags, and would have presented the appearance of miniature cromlechs. In design they were irregularly circular, composed of five or more small stones, which in a manner lined the mouth of a little pit sunk about a foot or so into the 'till.' The dimensions of the largest, and we may say perfect, cist were as follows: 2 feet 2 inches by 2 feet 3 inches; depth, as well as could be ascertained, 2 feet. That they had ever contained urns is highly improbable, as not a fragment of pottery appeared to reward the search.

'Horned cairns,' bearing a general likeness to the Doohat monument, are also found in the north of Scotland, and were first properly investigated by Dr. Joseph Anderson, as described in *Scotland in Pagan Times* (p. 230). In Scandinavia graves are found of various forms, triangular, square, oval, and ship-shaped, a description of which will be found in Fergusson's *Rude Stone Monuments* (p. 281), and M. Du Chaillu's *Viking Age* (vol. I., chap. xviii.). Triangular-shaped graves were generally supposed to be confined to Scandinavia, but at least one example, as noticed by Colonel Wood-Martin, in *Rude Stone Monuments of*

Sligo (p. 176), occurs in Ireland, in Northern Moytura (Moytirra), the scene of the battle between the Fomorians and the Tuatha De Danaan, seven years after the latter had defeated the Firbolgs at Southern Moytura, Cong. Sir William Wilde describes some of the cairns which mark the latter battlefield in his *Guide to Lough Corrib* (chap. viii.).

Mounds.—Mounds of earth, occasionally mixed with stones, were sometimes erected as places of interment. In England these earthen mounds are called 'Barrows'; they partake very much of the character of cairns, from which class of sepulchre they may be said to differ only in material, the cairns being entirely of stone. Some interesting examples may be seen in the immediate vicinity of Dublin, in the neighbourhood of Clontarf. These have been usually, but we believe without warrant, associated with the great battle fought on Good Friday, 1014, in which Brian, the son of Kennedy, commonly called Brian Boroimhe, or 'of the Tributes,' fell in defeating the Danes. The discovery of a Celtic sepulchral urn in one of these mounds, and a bronze sword, and other relics of the same material in the tumulus near 'Conquer Hill,' are evidence of an existence long anterior to the eleventh century.

Small cairns marking the place of a death, or a halting-place in a funeral procession, are still raised in some parts of Ireland—a practice also common among primitive people in other lands. Examples of cairns raised by devotees at some sacred spot are occasionally

to be met with. The most remarkable instance we know of is that raised by pilgrims, who add stones to the heap after performing their stations, at Glencolumbkille, Co. Donegal. It stands high upon the side of the hill, close to the ruins of the old church, and measures about 30 paces long, 4 wide, and 5 feet high.

Stone Circles.—Stone circles of great magnitude are to be seen in many parts of Ireland. Of the lesser kind numerous examples occur in various counties, and particularly in the north and north-west. They are invariably composed of rough unhewn blocks, varying in height from 2 to 11 feet, or more, above the level of the adjoining land; and in some instances they are encompassed with a low earthen mound or ditch. Their area, though often apparently unoccupied, is generally found to contain one or other of the remains already described —a cromlech, a tumulus or cairn, a smaller circle, a pillar-stone, cists. Human bones, cinerary urns, ashes, weapons, implements or ornaments of bone or flint, or other objects, are invariably discovered within these enclosures upon the earth being disturbed. The remains of a cremated body were sometimes deposited in a cist, with or without an urn to contain them, and the site marked with a circle of standing stones or a single pillar. It is difficult now to determine the exact significance of the stone circle round the mound or burial-place. Aristotle makes an interesting allusion to the erection of stone circles round burial sites: 'Among the Iberians, who are a military people, it is the custom to set round the tomb of a deceased warrior a number of obelisks cor-

responding to the number of enemies he has killed.'* The last resting-place of the dead has, however, at all times been looked upon as more or less sacred; and Christian burial-places are especially consecrated for the purpose, and protected from intrusion. The custom of raising a stone circle round a dolmen or cist containing burial remains has been a general one; and examples are found as far off as Syria and Arabia similar to the

Stones of the Circle at Newgrange.

megalithic structures of the British Isles. The desire to protect and honour the remains of the illustrious dead has existed in all lands, and has shown itself in the production of the most remarkable monuments that the world has known. The megalithic structures of western Europe, the elaborately decorated tombs of the Mycenæan Age, the rock-tombs of Etruria, the Egyptian pyramids, and the magnificent monuments of India abundantly

* *Politics*, Bk. iv., Ch. 2.

testify to the respect for the dead in the mind of man everywhere throughout past ages.

Circle at Newgrange.—It is impossible within the limits of this Handbook to do more than briefly indicate a few typical examples of the many stone circles scattered throughout the country. The stones which encompass the monuments of Newgrange and Dowth are generally very large, some of them measuring

Remains of Stone Circle near Dowth.

8 or 9 feet in height. The engraving (p. 123) represents a portion of the circle at the former place, of which a description has already been given. There are several minor examples in the same neighbourhood, but they are in a state of great dilapidation, and, with one exception, would hardly repay a student for the time occupied in visiting them, particularly as the grander remains at Newgrange are so accessible.

Portions of a fine circle, or rather oval, lie a little to the east of Dowth Hall, to the left of the road from Drogheda. Many of the stones have been removed, but several of gigantic proportions remain in their original position.

Circle near Newtownbutler.—One of the most notable circles now remaining in Ireland is that called the 'Druid's Temple,' situated on the summit of a hill near Wattle Bridge, a small hamlet in the vicinity of Newtownbutler, Co. Fermanagh. The stones vary in length from 3 to upwards of 10 feet. The largest remaining measures slightly over 10 feet; it is 6 feet 5 inches in breadth, and 3 feet 9 inches in thickness. Another is 7 feet high, 8 feet 5 inches broad, and 5 feet in thickness. The circle on the interior measures in diameter 126 feet. The diameter of the outer ring at Stonehenge is 100 feet, a figure common to several of these remains.

Whether the Fermanagh circle was ever enclosed by an outer work, as was common with kindred structures in Britain and elsewhere, can probably never be ascertained. For more than two hundred years the land immediately adjoining has been subject to the plough. That there were outside works, however, can scarcely admit of a doubt. On the south-east side, a distance of five paces from the circle, are five large stones, the ruins of a cromlech which had been wrecked many years ago for the sake of its material.

Ballynoe (Legamaddy) and Slieve na Greidle Circles.—Interesting examples of stone circles are to be found in County Down. The largest is Legamaddy, close to Ballynoe station, about three miles south of Downpatrick. It consists of inner and outer circles; the former measures 90 feet by 40 feet, with 22 stones, and the latter 100 feet in diameter, with 45 stones. Another

occurs on Slieve na Greidle, or Griddle Mountain, to the south-east of the town.

Some of the finest of this class of prehistoric remains which we have seen in Ireland occur near the shore of Lough Gur, a spot noted for the number and variety of its antiquities, one hundred of which are known to have existed within the memory of man. Lough Gur lies about ten miles south of Limerick on

Stone Circle, Ballynoe, near Downpatrick.

the road to Bruff; and the first account of its antiquities was given by Crofton Croker in 1830, after three days' investigation, extending over a tract of country fifteen miles in length. 'The finest circle is 56 yards in diameter, and consists of a very large number of upright blocks closely arranged and flanked by a great bank of earth. It is approached by a passage 12 feet long, the entrance being guarded by two blocks, close to which is one 8 feet by 7 feet, and

over 3 feet thick. In a field to the north-west are traces of two more circles, one with a centre stone; and in the next field to the north, the remains of another, 65 yards in diameter, of smaller stones than the first.' On the verge of the lake further east is a small circle of seven fallen stones; to the north of Knockadun Hill are three complete circles, two being concentric.*

Stone Circle at Slieve na Greidle, Co. Down.

For our purpose, however, a sufficient number of typical examples have already been given.

Alignments.—At Carnac in Brittany, at Ashdown, Berkshire, in Caithness, and in Sutherland may be seen lines of stone placed upon end, and generally some few feet apart. The row is occasionally of a length not exceeding a few yards; but sometimes it appears to

* *Murray's Handbook of Ireland* (1902), p. 350.

cover a great extent of ground. The stones vary in size, some of the blocks being of large proportions, and others measuring barely 3 or 4 feet in height. All are invariably unhewn, presenting the appearance of rough surface stones, or of such as are usually found in glacial-scooped ravines or river-beds. These lines are usually in parallel rows, varying in number to ten or more. For want of a better name they have been variously styled avenues, alignments, rows, parallelitha. From the days of Stukeley they have been the subject of much speculation, and we have little beyond conjecture in regard to their uses. They seem like 'galleries which lead to nothing'; yet their construction affords unmistakable evidence of organized labour and deliberate design.

The antiquities of Cavancarragh, a district situated on a shoulder of Toppid Mountain, about four miles from Enniskillen, consist of two chambered cairns, a stone circle, and what appears to be a small but well-defined alignment. The latter, and the circle within living memory, lay buried to a depth of from 8 to 12 feet beneath the surface of a mountain bog. The alignment consists of a row of stones, four in number, extending, as far as it can be traced, 480 feet in a direction very slightly to the north-west and south-east. The blocks average about 3 feet in height by 2 feet in width, and 6 inches in thickness, and present the appearance of the ordinary red sandstone flags of the district. The extreme south-eastern portion of the work has probably been destroyed; but in that direction the lines could never have extended much

further than they do at present, as the ground suddenly descends, forming one side of a deep ravine, through which in winter time a mountain torrent rushes. How far to the north-west the lines extend is at present uncertain, and cannot be known until the peat in that direction is further lowered. Probably, however, beyond the circle no considerable extension would be discovered. The cairns here are in a very ruinous condition, having for the greater part of a century served as a quarry for building purposes. The plan of one of them is very similar to that of the monument at the 'Barr' of Fintona already described. There was no central chamber; and only two of its circle of cists remain in a good state of preservation. The stone circle standing near the north-west side of the avenue is 20 feet in diameter, and is formed of twelve sandstone blocks which at present rise but 2 or 3 feet above the level of the bog.

There are, however, in Ireland lines of stones, sometimes single, but never more than double, which should not be confounded with those strictly of the alignment class. Some of these are the remains of passages which led to sepulchral chambers, and have been either stripped of their covering slabs, or were never finished. Such rows may indeed sometimes be looked upon as portions of ruined cromlechs, or skeleton traces of monuments like those of the Boyne or Maeshowe.

We find stones of various sizes, differing, as at Finner, near Ballyshannon, from 1½ to 2 feet, or 2 feet

6 inches above ground; or, as at Breagho and Killee, near Enniskillen, with an elevation of 6 or 7 feet, upon which no definite opinion can be formed as to the class of monument to which they should be assigned. In all probability they represent but wrecks of works of a sepulchral kind, which, at a time now forgotten, but doubtless in modern days, were exhumed during the process of turf-cutting. Of these, as well as of several other broken or never completed relics of a megalithic class, found in several parts of Ireland, it is only certain that they rest on the 'till' upon which peat, to a depth of from 8 to 12 feet or more, once lay.

One of the most remarkable examples of a stone circle and lines known in the British Isles is Callernish, on the west coast of the Island of Lewis. The stones were partially embedded in peat. This was cleared in 1858,

Bird's-eye view of Callernish Circle and Lines.

and found to exist to a depth of 5 feet. The stones were here securely sunk in a 'rough causewayed basement.' The circle, about 40 feet in diameter, is formed by twelve stones round a central one 17 feet high. Between

this stone and the east side of the circle was found a ruined chambered cairn, 20 feet in diameter, which contained fragments of burnt human bones. The stones are set in the form of a cross, the east, south, and west lines single, and extending from the circle. To the north is a double row or avenue 270 feet long.

There are examples of these lines in the Dartmoor district, with rows in one case of seven parallel lines. On the Stalldon Moor is a single line of stones, starting from a stone circle, which can be clearly traced for one and a half miles, and imperfectly continued for three-fourths of a mile further, terminating at a kistvaen. Another perfect line is the Down Tor Stone Row, about 600 yards long, extending from a circle enclosing a small barrow towards a large cairn.*

* See *Reliquary and Illustrated Archæologist*, vol. i., p. 35.

CHAPTER V.

BURIAL CUSTOMS.—OGAM STONES.

NECESSITY FOR DISPOSAL OF DEAD—INHUMATION AND CREMATION IN BRITISH ISLES AND CONTINENT—BALLON HILL—CARROWMORE—DYSART—METHODS OF BURIAL—ORIGIN OF CREMATION—RELIGIOUS SENTIMENT — URNS, CLASSIFICATION AND USES OF — OGAM STONES—REFERENCE TO, IN IRISH MSS.—MOUNT CALLAN STONE—BISHOP GRAVES—OGAMS DESCRIBED—ALPHABET—GENERAL CONSIDERATIONS.

NOTWITHSTANDING the number and variety of sepulchral remains in Ireland, it is strange that the rites and ceremonies attending the disposal of the dead in prehistoric times have not received from Irish archæologists the systematic study they deserve. Unfortunately many of the burial sites have, in the past, been treated in a manner that has left but little data of any scientific value for expert use. The number discovered of cinerary urns containing human remains has been very great, and establish, beyond a doubt, the fact of the general custom of cremation. Most of these urns have been destroyed, either through the ignorance and stupidity of the discoverers, or the carelessness of the subsequent owners.

Under all human conditions it is necessary that some method should be adopted for the disposal of

the dead; but there can be no doubt that the religious sentiment has ever been the predominating factor in all burial customs. The earliest method of disposing of the dead was by simple interment; and even when cremation became general, the practice was never entirely abandoned. Both forms may occur in the same mound; but the general result is that the inhumed remains are found at the bottom, and the cremated remains nearer the surface, which shows these were later in point of time. Where, however, the earliest interments have been burnt bones, inhumed bodies, as at Ballon Hill, may form secondary burials. The result of Canon Greenwell's explorations in the barrows of Yorkshire showed that out of 379 burials 301 were by inhumation, and in 78 cremated remains were found. Exploration in other parts of England gave similar results.* Out of 297 interments in Derby, Stafford, and York, Mr. Bateman found that 124 were of burnt bones; 163 were of ordinary burials, of which latter the bodies in 97 had been placed in a contracted or sitting position. Sir R. C. Hoare found that out of 267 interments in Wiltshire, 214 were of cremated remains, 53 of inhumed, of which the skeletons of 15 were found contracted. In the district of Glasinac is a vast collection of tumuli. 'Their total number,' says Dr. Munro, 'is estimated at 20,000—an estimation which is now regarded as coming far short of the actual number—of which about 1000 have been explored. . . . . The builders of these burial mounds practised both

* *British Barrows*, p. 19.

inhumation and cremation, the former being in the proportion of 60 per cent., and the latter 30 per cent., while the remaining 10 per cent. were of a mixed character, *i.e.*, contained both kinds of interments.'* In the Hallstatt cemetery in the Noric Alps (which has given its name as a distinctive term to an archæological period, owing to the importance of its 'grave-goods'), tombs to the number of 993 were examined as far back as 1868. Of these '525 contained simple interments; 455 had incinerated human remains; and in 13 the bodies had only been partially burnt before being interred.'† Great quantities of implements, domestic articles, and objects for personal use and adornment have been found in both classes of graves.

At Ballon Hill, near Tullow, County Carlow, a number of cinerary urns and great quantities of cremated remains were discovered in 1853, evidently of the pure Bronze Period. This spot has not been identified with any of the great burial-places mentioned in early Irish records. Three skeletons were found a couple of feet beneath an immense boulder, 'huddled together in a small space not above 2 feet in length.' At a considerable depth below these, and beneath four granite blocks, a bed of charcoal was reached, containing broken urns of four different patterns. Many perfect urns were found, some of which are among the finest examples yet discovered in Ireland. The urns were placed in stone cists, and also in the earth without any trace of an enclosure. There was evidence of great

* *Rambles and Studies in Bosnia-Herzegovina and Dalmatia*, pp. 132, 133.
† *Ibid.*, p. 400.

fires, while deep pits and beds of charcoal were laid bare, showing the extent to which cremation and the attendant funeral rites had been carried out at this spot. The only weapon found was a single dagger blade of bronze.* Carrowmore furnishes an instance of a mixed interment, where the inhumed remains were found over the calcined bones. 'At the lowest level,' says Colonel Wood-Martin, 'of the side-stones of the cist a floor or flagging of calpy limestone slabs was found. It was on this—which overlay the undisturbed "till"—that the body or bodies of the primary interment had been originally cremated, portions of the floor showing marks of fire; and semi-burnt wood was found inlaid, with the layer of calcined bones above. It was plainly evident from the floors and burnt bones extending in "pockets" under the side-stones of the cist, that the latter had been constructed over the funeral pyre, and that the calcined remains were the primary interment, and that they had not been placed within an already completed chamber.'†

In a small tumulus at Dysart, County Westmeath, Dr. Dillon Kelly discovered, in 1876, two kistvaens containing skeletons in a contracted position. One was of an irregular pentagon shape, the longest diameter being 3 feet 9 inches, and the depth 2 feet 3 inches. In this there were three animal teeth; and each chamber contained a fine urn of baked clay. Cremated remains were found on the covering stones and round the cists. The burning seems to have taken place over the

* *Journal* Roy. Soc. of Antiq. Ir., 1852–3, p. 295.

† *Pagan Ireland*, p. 108.

inhumed bodies, whose heads may, from their sitting position, have come into almost immediate contact with the covering stones. The supposition receives additional weight from the baked look of the tops of the skulls, both of which presented such an appearance over the whole of their vertical aspects.*

Urn burials on a larger scale were found at the Hill of Rath, near Drogheda, in 1841. Here remains of some 150 to 200 urns were discovered in an inverted position, each covering a quantity of human bones. They were placed in the earth without any protection, and were in consequence mostly broken by the pressure of the earth. Singly and in small groups urns containing incinerated remains have been found in most parts of Ireland. Worsaae was of opinion that many of the mounds or barrows were places of family sepulture, and that cists containing urns with burial remains found in open fields were those used by the poorer class who had no burial mound in which to place their dead.†

We have ample evidence of the antiquity and general practice of cremation in Europe. It was the custom of the Achæans, as Homer tells us, at least 1000 B.C. The remains of Achilles 'were wash'd in wine and given fit unction,' and, with the bones of Patroclus, placed in a 'two-ear'd bowl of gold.' This was placed in a grave, and over it was raised a 'matchless sepulchre' high above the Hellespont. The body of Hector was burned on a mighty pile of wood, and the

* *Journal* Roy. Soc. of Antiq. Ir., 1876–8, p. 178.

† *Primeval Antiquities of Denmark*, p. 96.

remains treated with similar observances. Recent archæological opinion ascribes the origin of cremation to the Celtic tribes inhabiting Central Europe. It is urged that the custom would not have arisen among nomadic tribes, but rather among a people living in a land covered with woods and forests. Tacitus says that the Germans 'simply observe the custom of burning the bodies of illustrious men with certain kinds of wood. They do not heap garments or spice on the pyre. The arms of the dead man, and in some cases his horse, are consigned to the fire. A turf mound forms his tomb. Monuments, with their lofty elaborate splendour, they reject as oppressive to the dead.' In Denmark cremation became a general practice; and in Scandinavia it was an essential religious custom in the worship of Odin. Professor Montelius thinks that the evidence favours the view that in the north of Europe the Stone Age ended rather before than after 1500 B.C. During it the bodies were always buried unburnt in a recumbent or sitting position, and, as in the British Isles, urns and implements are found with the burial remains.*

The Gauls, as we know from Cæsar, burned some of the servants, slaves, and favourite animals of the dead chief, or warrior, in celebrating their funeral rites. Cremation was not practised in Asia Minor, Phœnicia, or Palestine. The Egyptians embalmed their dead, for they believed that as long as the body existed, so long did the soul exist in the spirit world. The Scythians, as Herodotus tells us, did not burn, but buried their

* *The Civilization of Sweden in Heathen Times*, p. 32.

dead. They embalmed the body of their king; and 'they strangle and bury with him one of his concubines, his cook, cup-bearer, groom, lackey, his messenger, and some of his horses, firstlings of all his other possessions, and some golden cups.' Over all was raised a mound; and 'this Scythian custom, in its late Greek and Roman imitations, explains the countless tumuli which travellers see to this day in Bulgaria, in the Dobrudscha, in Wallachia, Moldavia, and Southern Russia, as far as the Crimea.'* The Thracians either burned or buried their dead, held feasts and games, and raised tumuli. In Illyria and in Bosnia, as we have stated, inhumation and cremation were observed at the same time. Historical evidence goes to show that the Thracians and Illyrians were conquered by the Celtic tribes from the Alps; 'and as the culture of the early Iron Age in the Danubian region corresponds to that of the Celtic Hallstatt, there is a probability that the practice of cremation, which makes its appearance in the early Iron Age in Bosnia, and which was practised by some Thracians in the fifth century B.C., was introduced by the Celtic conquerors who lived with the Illyrians and Thracian tribes.'† Mr. Ridgeway, having carefully considered the methods of disposing of the dead in the countries bordering on the Mediterranean, finds that, without exception, 'inhumation, or some other method of disposing of the body without the use of fire, was universal in early times, and continued so over most of the area down to the Christian

* *Schliemann's Excavations*, by Dr. Schuchhardt, p. 86.
† *Early Age of Greece*, by W. Ridgeway, p. 495.

era.' His conclusion is 'that cremation did not pass into Greece from either Libya, Egypt, or Asia Minor, nor did it originate among the Pelasgians of the islands, nor yet in the mainland.'* Whether the practice arose among the Celtic tribes of Central Europe, or was adopted by them, it passed with other customs and things westwards and northwards along the trade routes, and its adoption in Britain and Ireland was merely a matter of time.

Man's belief in a spiritual existence was, as we have already pointed out, the cause of that respect for the dead, which has shown itself in the countless sepulchral monuments scattered all over the world from prehistoric times down to our own days. To house the dead and hold the spirit entombed was the idea that once prevailed, and does so still among savage tribes. Immense cromlechs, cairns, and mounds of earth were raised above the dead, not only to house the spirit fittingly, but to prevent its return to earth; and strange customs still survive among primitive races to puzzle the dead should they attempt to return to their old habitations. It was a belief, too, among the Celtic tribes, as it has been among other races, that the spirit of the dead chief would keep watch and ward over them, and hence the burial-mound was sometimes raised close to or within the ring-wall of the camp. We are told that Eoghan Bel, King of Connaught, having received his death-wound in the Battle of Sligo, ordered that his grave should be dug in the side of his rath, and his body buried 'with his red

* *Early Age of Greece*, by W. Ridgeway, p. 495.

spear in his hand and his face to the north.'* The site overlooked the pass traversed by the Ulstermen in their accustomed raids; and the burial was so effective in terrifying these foes that they made a special incursion, exhumed the body, and buried it with its face downwards on the shores of Lough Gill. King Laoghaire* was buried, as we have already mentioned, in the south-east external side of the rampart of Rath Laoghaire, Tara, with his weapons upon him, and 'his face towards the Lagenians in the attitude of fighting with them.'† (See p. 50.)

The dead were believed to require servants, food, raiment, weapons, and a home such as they did in life; and hence the quantity of 'grave-goods' of early races, so important to the archæologist, discovered in many burial-mounds and tombs. Small fictilia, which are considered food-vessels by some, are commonly found with body burials, the offering of food and libations to the dead being a primitive custom, which still exists in many heathen lands, and has its survival in some Christian practices down to our own time. When inhumed, the dead chief was laid in the grave, or within the chambered tumulus, clad in full apparel, with his ornaments and weapons, and servants to attend him. We have references to the burial of warriors with their weapons in Irish MSS. Dr. Sullivan quotes the following:—'Dearg Damhsa, the druid, made a capacious yellow-sodded Fert for Mogh Neid on the plain, and he buried him in it with his arms, and with his clothes, and with his armour.' And from the *Book*

* *Annals of the Four Masters*, A.D. 537. † *Ibid.*, A.D. 458.

of Lecan he cites this:—'He killed Feradach after that, the good son of Rocuirp; according to rule, and until his death, he brandished his arms which are under the Duma of the beautiful Carn. Feradach was killed at the Battle of Carn Feradaig, and this here is Feradach's Fert.'*

In cremation the old neolithic practice was changed with the newer conception of the relation between the soul and body. This belief was that the soul could not pass into the spirit world until the body had been destroyed by burning. Total separation was necessary, and the quickest and most effective method was through the medium of fire. The practice was probably an evolutionary one, as in France the process of the natural destruction of the flesh from the bones, before the latter were burned, seems in the first instance to have been adopted. Until the body was destroyed the spirit haunted its local habitation; and the Homeric idea, shared by the Celt and Norse, was that, when the earthly tabernacle was consumed, the soul departed for ever to the world of shades.

Cremation was very probably confined to the chiefs, heroes, or other important persons, as from the very difficulties attending burning the ordinary practice of interment was doubtless adopted for the rank and file of the tribe. Inhumation was practically universal all over Europe until the close of the Stone Age; but all through the Bronze Age both customs were practised, and in the west of Europe interment remained the pre-

* *Manners and Customs of the Ancient Irish*, O'Curry; Introduction, p. cccxl.

vailing custom of disposing of the dead. In the north of Europe, however, cremation reached a far higher development than elsewhere. In remote districts of Spain, France, and in the British Isles the sepulchres of the Stone Age long lingered; and in the tombs and chambered cairns cremated remains have been found of the later Bronze Period.

Though there are numerous references in Irish MSS. to burials in early times, on the subject of cremation they are silent. We have one remarkable passage, however, which has frequently been quoted and commented on, as it seems to refer to this custom. In the *Book of Ballymote* is the following account of the death of Fiachra, son of Eochaidh Muighmhedhoin, and brother to Niall of the Nine Hostages: 'Then the men of Munster gave him battle in Caenraigne, and Maidhi Meascoragh wounded Fiachra mortally in the battle. Nevertheless, the men of Munster and the Erneans were defeated by dint of fighting, and suffered great slaughter. Then Fiachra carried away fifty hostages out of Munster, together with his tribute in full, and set forth on his march to Temor. Now, when he had reached Forraidh in Uibh Maccuais, in Meath, Fiachra died of his wound. His Leacht (grave) was made, and his Fert (mound) was raised, and his Cluicht Caintech* were ignited, and his Ogam name was written, and the hostages which had been brought from the south were buried alive round

* Dr. Sullivan was of opinion that these words are used here in the sense of funeral pyre; but this is not accepted, as strictly they are applied to the whole funeral rite, especially to the reciting of dirges, and the performance of games. See *Manners and Customs of the Ancient Irish*, vol. i., cccxxiii.

Fiachra's Fert, that it might be a reproach to the Momonians for ever, and that it might be a trophy over them.' Though we have but this single recorded instance in Irish Annals of human sacrifice—that of strangers at the burial of a chief—it must not be regarded merely in the light of revenge for the death of their leader. The reproach here cast on the men of Munster followed a principle common wherever similar burial customs have prevailed. According to the practice usually observed at the burial of a chief, the attendants and slaves who were to accompany Fiachra to the spirit world would have full funeral rites conferred upon them. But the Momonian hostages were thus destroyed, so that their souls might keep perpetual guard around Fiachra's fert, that covered his sepulchre of stone.

Urns.—As we have seen, urns are among the objects commonly found with the remains of the dead, whether inhumed or cremated. The Irish fictilia are usually classified as food-vessels, cinerary urns, and incense-cups. In Great Britain a fourth class is known, called 'drinking-cups,' but none of these have been found among burial remains in Ireland. The cinerary urns vary in size and ornamentation, and are found from 10 to 25 inches in height; one of the latter size is in the Grainger collection in the Belfast Museum. They are usually of narrow base, and reach their widest above the middle; they contract towards the mouth, which has an overhanging rim; this is sometimes broad enough to contain all the ornamentation on the urn. This

consists of chevron, lozenge, or other archaic designs impressed into the clay. A good many of the richer description present mouldings, bosses, &c., in relief. It is difficult to form an exact opinion as to the manner in which the more highly decorated and larger urns were manufactured. They generally present an outer surface, some eighth or so of an inch in depth, composed apparently of well-kneaded compost of yellow or buff-

Cinerary Urn, from One Man's Cairn, N. Moytura.

coloured clay, which exhibits but few or no traces of the action of fire. Underneath this envelope is a black, highly-fused mass of coarser composition, which forms what may be called the strength of the vessel. It is a curious fact that the majority of cinerary vases exhibit upon the interior indications of an intense action of fire, while in many examples the outer surface would seem to be simply sun-baked. From a careful examination of a considerable number of urns found in Irish tumuli and sandhills, it seems to us that at least

three stages in the process of their formation are indicated. First, the vessel appears to have been fashioned of a somewhat coarse, gritty material; it was then baked in a strong fire, and burnt almost to blackness. It would seem, upon cooling, to have been overlaid with a fine matter, generally buff or cream-coloured, sufficiently soft to receive impressions readily

Cinerary Urn from Co. Carlow.

from a tool formed of wood, horn, bone, stone, or possibly of bronze or iron. Strips of light material, like that of the coating or veneer already referred to, were then laid on, just, to use a homely illustration, as a modern cook will embellish a pie-crust. The overlayings, while still soft, were then indented with patterns, and the work either dried in the sun or

presented to the influence of a moderate degree of heat from a fire of wood or peat.

All sepulchral urns were hand-made and invariably unglazed. They have been found to contain portions of the bones of a human body, sometimes of more than one, in a highly calcined state; and there is reason to believe that occasionally some relics, also burnt, most notably those of the dog, had been inurned along with the remains of man. Arrowheads and knives of flint, pins of bone or bronze, glass and stone beads, rings of jet, and in one case, at least, a beautiful

Cinerary Urn, Co. Wicklow.

Cinerary Urn, Co. Cavan.

knife or dagger of bronze, have formed, with the bones, portion of the contents of these vessels; charcoal and particles of half-consumed wood constitute the remainder. Sometimes the urn is found placed mouth downward, and, as at Drumnakilly, surmounting a cup-hollow; but in general it stands on its base, and is covered by a thin flat stone or slate. A unique and very beautiful example, preserved in the National Museum, is furnished with a veritable lid. Though

generally presenting the appearance of a cinerary urn, this relic may have been a food-vessel.

The vessels considered to have been receptacles for food are usually found associated with inhumation, and are supposed to have contained food for the spirits in their journey to the world of shades. Though they vary greatly in ornamentation, yet they are better

Urns from Co. Down.

made and more richly decorated than the British urns of a similar class. They are somewhat globular in form, and are well represented in the figure on next page, which shows a specimen discovered in connection with the cromlech-like tomb in the Phœnix Park, already described. This vessel, with some antiquities of the same 'find,' may be seen in the National Museum. One other example (p. 149), remarkable for

the elaborate character of its ornamentation, is from Ballymote, County Sligo.

The so-called 'Incense Cups' found in Ireland are, like their British prototypes, invariably of very small

Food-Vessel from Cist in the Phœnix Park, Dublin.

size. They are usually undecorated; the rims are sometimes pierced with four or more apertures, as if

Small Cinerary Urn, Bagenalstown, Co. Carlow.

for suspension. In Ireland vessels of this kind are usually found enclosed in urns of the larger and richer

class. There is no evidence to support the theory that they were used as vessels for holding 'incense,' or as 'chafers' containing burning coals for a short time. They are now generally considered as cinerary urns in which the remains of infants were placed. Perhaps

Food-Vessel from Grave near Ballymote, Co. Sligo.

the most beautiful specimen yet discovered in the British Isles was found near Bagenalstown in 1847, which contained the burnt bones of an infant or very young child. 'It was embedded in a much larger and ruder urn, filled with fragments of adult human bones.' The smaller urn, when reversed, 'presents,' says Wilde, 'both in shape and ornamentation all the characteristics of the Echinus, so strongly marked that one is led to

believe the artist took the shell of that animal for his model.' It is $2\frac{1}{8}$ inches high, and $3\frac{3}{4}$ across the outer margin of the lip, which is beautifully ornamented, and has the rare addition of a handle. The body is divided into a number of upright sections, all elaborately worked in a variety of patterns. A rope-like ornament surrounds the neck, and the under-portion of the lip has an accurately cut chevron.

OGAM STONES.

The passage we have quoted from the *Book of Ballymote* (p. 142) is one of many from Irish MSS. which refer to Ogam Stones. In the account in the *Leabhar na h-Uidhre* of the death and burial of Fothadh Airgthech, who was killed in the Battle of Ollarba, near Larne, in 285 A.D., we are told of his burial in a stone sepulchre with 'his two Fails (bracelets), his Bunne-do-At (twisted hoop), and his Muintorc (neck-torque) of silver; and there is a rock standing at his tomb; and there is an Ogam inscription on the end which is in the ground of the rock, and what is written on it is: Eochaidh (or Fothadh) Airgthech is here.'* In the *Táin Bó Chuailgne* (the Cattle raid of Cooley), the earliest copy of which is to be found in the *Book of Leinster*, we read that when Fergus mac Roigh brought back the body of Fergus Etercomal, who was slain by Cuchulainn, they celebrated his funeral games, planted a stone over his grave, and inscribed his name in Ogam. In an early poem in the *Book of Leinster* we have, in an account of the Battle of Gabhra, which was

* O'Curry, *Manners and Customs*, III. 176.

fought in 283 A.D., the following lines referring to the death of Cairbre Lifeachair :—

> 'An Ogam in a *lia*, a *lia* over a *leacht*,
> In a place whither men went to battle,
> The son of the king of Erin fell there,
> Slain on his white steed by a sharp spear. . . .
>
> 'That Ogam which is upon the stone,
> Around which the heavy hosts have fallen
> If the battle-fighting Finn had lived,
> Long would that Ogam be remembered.'

Many passages exist, too, referring to the use of Ogam writing on pieces of wood to convey messages by hand. Opinion has been divided as to how far the passages we have quoted bear testimony to the antiquity of Ogam stones for sepulchral purposes. This at least is plain : the belief in this use of the stones existed when the MSS. were written, and the stones themselves furnish strong presumptive evidence that the testimony of the records is based on something more than mere vague tradition. Many of the stones no doubt stand in their original position ; but the meagre nature of the inscriptions renders it difficult, if not impossible, to identify them with any degree of certainty with those who figure in ancient Irish records.

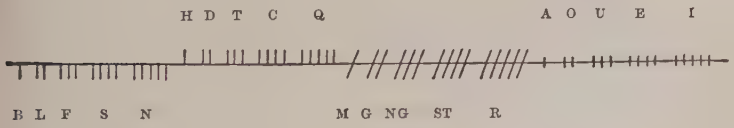
The earliest notice of Ogam writing is in the *Book of Leinster*, which gives the scale of letters. The *Book of Ballymote* is of especial interest, as it contains a tract on the Ogam writing of the Gaedhil, with the 'key now ordinarily used in the translations of inscriptions, as well as a variety of ciphers founded on the original

characters.'* It was not until 1784 that the attention of antiquaries was directly drawn to the existence of Ogam stones by the discovery of the Mount Callan monument in Co. Clare with an inscription in Ogam character. A vigorous controversy raged over this 'find'; but it had one important result, the interest of archæologists was aroused, and in subsequent years General Vallancey and others gave considerable attention to the subject of Ogams; many stones were discovered and their nature and character investigated, not, however, without many wild theories being advanced, supported by unsound arguments and distorted learning. In 1846 the late Bishop Graves for the first time brought scientific methods to bear on the elucidation of Ogam inscriptions, and clearly demonstrated by independent investigation the certainty of the scale in the *Book of Ballymote*. The general principle upon which he based his analysis was: 'That in any given language, or group of cognate languages, there is a preference for particular sounds and particular sequence of sounds.' After various trials he established satisfactory results, and placed

Ogam Stone (Co. Kerry) in Trinity College, Dublin.

* *Ogam Inscribed Monuments of the Gaedhil*, Richard Rolt Brash, p. 13.

the whole scheme of inquiry in papers read before the Royal Irish Academy, in the years 1848–9. 'The Ogam alphabet,' says Dr. Graves, 'consists of lines, or groups of lines, variously arranged with reference to a single stem-line, or to an edge of the substance on which they are traced. The spectator, looking at an upright Ogam monument, will, in general, observe groups of incised strokes of *four* different kinds: (1) groups of lines to the right; (2) others to the left of the edge; (3) other longer strokes crossing it obliquely; (4) and small notches upon the edge itself. . . . Ogam inscriptions, in general, begin from the bottom, and read upwards, from left to right. Almost all those which have been deciphered present merely a proper name with its patronymic, both in the genitive case. The monuments appear, for the most part, to have been sepulchral in the first instance. But there is reason to suppose that they were used to indicate the proprietorship of land, either standing as boundary stones, or buried in crypts, as evidences to be referred to in case of disputes arising.'



It will be seen from the accompanying score that the letters are arranged in four groups of five letters each. Those of the first or B group are to the right of the edge, represented here by the horizontal line; the

second or H group to the left; the third or M group cut the edge obliquely; and the fourth or vowel group are small notches on the edge itself. Ogam inscriptions are written continuously, but the difficulty of a right division into words was simplified when it was found that the same group of incisions, which is rendered by MAQI, MAQUI, or other form, the old genitive of MAQUAS, a son, invariably occurred in these scores. A general idea of the readings may be gathered from the annexed figure, which gives —Feqreq Moqoi Glunlegget, (the Stone of) Fiachra, Son of Glunlegget; the scores on this stone are inverted. The first name is usually in the genitive case, and the word 'stone' or 'monument' is supposed to be understood.

Ogam Stone, Monataggart, Co. Cork.

The number of Ogams discovered (including fragments and lost stones) is now about 270, and these are chiefly confined to the south of Ireland; but it is significant, as Dr. Rhys points out, that the most recent discoveries are in Ulster and Mayo. The county of Kerry furnishes nearly one-half the entire number, the barony of Corkaguiny being the richest in these remains of antiquity.

There are nine in the burial-ground at Ballintaggart, near Dingle, and collections have been made at Burnham House (Lord Ventry), and at Parknasilla. The finest yet formed, numbering thirty, is in the National Museum, Dublin. The stones vary in form: most are tall and tapering, of a somewhat pyramidal shape; many are flags; some are amorphous monoliths; and others are rounded, especially those on the shores of the Dingle peninsula, which were probably worn by the action of the Atlantic waves. Ogam stones appear always to have been set up in the rough state, as those found present no appearance of having been cut into shape. Standing above the ground, they vary in height from 3 to about 19 feet. The scores commence at some distance from the foot of the stone, so that it is evident that the blocks, whether now prostrate or not, were originally intended to stand upright.

Ogam stones to the number of 54 exist in Great Britain, the cipher being identical with that of the Irish inscriptions. Of these South Wales has 25, Scotland 16, south-west of England 5, and the Isle of Man 6. Most of the Welsh and south-west stones have Roman lettering of a rude type which points to the early Christian period, when there was close intercourse between the Irish and Welsh Churches. One of the Welsh stones is of considerable importance, as it furnished an efficient test to the truth of the key to the cipher in the *Book of Ballymote*, and as demonstrated independently by Dr. Graves. This stone is at St. Dogmael's, near Cardigan; it contains an Ogam inscription, and another in Roman letters. A copy of

the former was sent to Dr. Graves, whose reading was practically identical with the Roman lettering which he had not seen. On a close examination of the stone, traces of the vowel *a*, which had been cut by a crack and absent in the copy of the cipher, were discovered, and the truth of his reading thus wholly verified.

Besides marking burial and other sites, Ogam stones are found in all kinds of situations: in souterrains, in some fourteen of which Ogam stones have been discovered; in drains and other field uses; and in the walls of churches and other buildings. In the underground chamber of Dunloe there are seven Ogam stones; in Drumloghan, Co. Waterford, ten; and on the stones forming the roof of a drain at Ballyknock, Co. Cork, there are fifteen inscriptions. When their original use had long been forgotten, they were evidently taken from their sites and converted into such building or farm purposes as the occasion required.

The Ogam character was sometimes used in other material than that of stone. There is MS. evidence, as we have mentioned, of its having been applied to wood, which was doubtless the material first used for the purpose; and examples occur in bone, amber, gold, silver, and lead. Of these are the Conyngham gold manilla, the authenticity of the characters of which was, however, doubted by Dr. Graves; a silver brooch found in 1806 at Ballyspellan (Co. Kilkenny), and which is considered to date from the end of the eleventh or beginning of the twelfth century. The specimen in lead was discovered by Mr. Wakeman in 1844; the little vessel upon which the scores appeared

was then in use as an ink-bottle. It is interesting not only from the legend being in relief, which goes to establish its genuineness, but also from the circumstance of its discovery in Kilmallock, the name of which place it gives. The characters are in two lines, and, if read from the bottom upwards, give the words: 'Nig-Lasmeich,' and 'Cill Mocholmog.' The object on which they occur is a narrow, quadrangular vessel, one inch and three-eighths in height, with sides converging upwards, and with a low, small, circular neck. The Ogam character, in one form or another, was sometimes used as a charm, as in the case of the amber bead belonging to a family of the O'Connors, near Ennis, Co. Clare; or, as shown by Bishop Graves, for purposes of divination.

Archæologists are not yet agreed on all matters relating to Ogams. The varied opinions as to the readings of most inscriptions, the somewhat uninteresting and meagre details of all, the doubt hitherto as to whether they are cryptic or not, the great difficulty of identifying them through the medium of Irish written records, limit the interest and check inquiry in this particular field of archæological research. But Dr. Stokes and Dr. Rhys have established their non-cryptic character, and shown their exceptional value from a philological point of view. Doubt, too, has long been thrown on their antiquity. Brash and others claim for them a pre-Christian origin; but recent authorities, such as Dr. Rhys, do not consider them earlier than the introduction of Christianity into the British Isles. It has been well urged by Bishop Graves that the division of the alphabet

into vowels and consonants 'furnishes internal evidence of its having been contrived by persons possessing some grammatical knowledge, and acquainted with alphabets of the ordinary kind.' Other questions arise, such as the presence of the Christian emblem on many stones, the number standing in church burial-grounds, and their presence in caves, from which various deductions have been drawn. It has been urged by the claimants for the pagan origin of Ogams, that it was the custom of the early missionaries to convert things identified with heathen uses to Christian purposes, and to mark such objects as these stones with the sacred symbol of the Cross. A consideration of these questions would lead us too far afield, and not necessarily lead to a final judgment on any of the points at issue. It is sufficient, however, to say that the internal evidence of the alphabet, and the affinity of the Irish unilingual Ogams to the bilingual stones of Wales, are in themselves highly presumptive of their dating within, and not without, the period marking the establishment of Christianity in Ireland.

CHAPTER VI.

RATHS AND STONE FORTS.

RATHS AND DUNS—SUBTERRANEAN CHAMBERS—SOUTERRAIN IN GURTEEN RATH—TARA—EMANIA—RATH OF DOWNPATRICK—HILL OF WARD—NAAS RATH—CASHELS—CLOCHAUNS OR BEE-HIVE HUTS—STAIGUE FORT—CAHERCONREE—CLARE FORTS—DUN AENGUS—THE DINGLE FORTS AND CLOCHAUNS—DUNAMOE—INISMURRAY—GRIANAN OF AILEACH—GENERAL CONSIDERATIONS.

THE wooden huts or wicker and clay dwellings of the primitive inhabitants of Ireland were quick to decay; but the raths, lisses, duns, and cashels, the remains of their camps and fortresses, exist all over the country, dotting many a plain or valley, and crowning many a hill. Whatever distinction originally existed between the terms *rath* and *Lios* or *Lis*, they are now commonly applied to fortified dwelling-places. Though they were generally used to signify the earthen rampart round the enclosure on which the dwellings were built, 'both are,' says Dr. Joyce, 'not unfrequently applied to the great high entrenched mounds which are commonly designated by the word *Dun*.'*

Raths and Duns.—Notwithstanding the destructive agencies of time, and especially the reclamation and

* *Irish Names of Places*, vol. i., p. 262.

enclosure of land, the number of raths still remaining is very great. The Ordnance Survey showed 10,000 in Munster, Limerick having 2191,* and the number for the whole of Ireland may be taken from 28,000 to 30,000. Dr. Joyce states that the term *Rath* enters into the name of 700 townlands, and *Lis* into 1400 townlands and villages. That so many of these structures remain, is due largely to the fact that the peasantry have a superstitious reverence for these 'forts' as the home of the 'good people' or fairies. They are also popularly attributed to the Danes; but their very number and distribution, and the fact that the Danes never established themselves beyond the east and south-east coast of Ireland, are sufficient, without mentioning other considerations, to show that the Danes had nothing to do with their erection. Fort-building covered a long period of time; and at whatever remote date it commenced, there is evidence to show that the forts were built and restored for many centuries after the introduction of Christianity into Ireland.

The general plan is circular and the construction simple. A deep ditch or trench was dug and the earth thrown up, forming a steep enclosing dyke or rampart, which was probably rendered further secure by a stake fence. They vary in size from a few yards to a hundred in diameter, and often consist merely of the circular entrenchment, the area of which is slightly raised above the level of the adjoining land. These are common in the central parts of Ireland, such

* *Ogam Inscribed Monuments*, R. R. Brash, pp. 99–101.

as the motes of Granard, Slane, and Clones. But in the case of many of the more important they were enclosed by two, three, or more breastworks; and within the inner rampart stood a steep mound, flat at the top, on which was erected the house of the king or chief, overlooking the camp. On the verge of steep cliffs, or rocky headlands jutting into the sea, and on the summit of inland hills, these defences were generally erected. Sites were chosen whose natural features afforded a ready means of rendering the positions secure. The term *Dun* is usually applied to this class of fortification, and it enters into the composition of many place-names, Dr. Joyce stating that it is used as a prefix to 600 townlands. Alignments of forts are an important feature in Ireland, and will be found especially on the sea-coast from Waterford, westwards, and round to the north of Mayo, and also in many inland districts. Perhaps the largest earthwork in Ireland is the Dun at Dorsey, County Armagh. It is about one mile long and 600 yards wide, and consists of a great embankment with a fosse on each side and outer ramparts. Portions still remain sufficient to show the magnitude of this great earthwork when originally constructed.*

Souterrains.—Within the inner rampart, but not in the raised mound as far as we have examined, underground passages and chambers varying in plan have been discovered. These earth-houses, to which the term *Souterrain* is now usually applied, are generally

* *Journal* Roy. Soc. of Antiq. Ir., 1898, p. 1 (Rev. Canon Lett, M.A.).

similar in structure to the sepulchral chambers already described, the passages being lined and covered with stones, and the chambers of a bee-hive shape, formed by overlapping courses. Where the earth was sufficiently compact the excavation was sometimes made practically without the aid of stone, which was used only in forming the entrance. It is evident from the intricate nature of these underground structures, and the readiness with which they could be defended from attack, that they were designed as places of safety. They were probably used both as places of temporary retreat and as storehouses, the want of ventilation, save that derived from the narrow external entrance, rendering them unfit for continued habitation. Tacitus says the Germans dug underground dwellings: 'These they use as winter retreats and granaries, for they preserve a moderate temperature; and upon an invasion, when the open country is plundered, these recesses remain inviolated, either because the enemy is ignorant of them, or because he will not trouble himself with the search.'

An examination of the kitchen-middens of some of these raths produced the ordinary 'finds' of primitive dwellings, stone, flint, and bone weapons and implements, the bones of animals used for food, fragments of pottery, bronze and iron objects. The Whitechurch rath, examined by Mr. R. J. Ussher, yielded a variety of these, including many iron objects, which showed that its occupation probably covered a long period of time. The rath had been deeply excavated to form the chambers and an extensive system of connecting

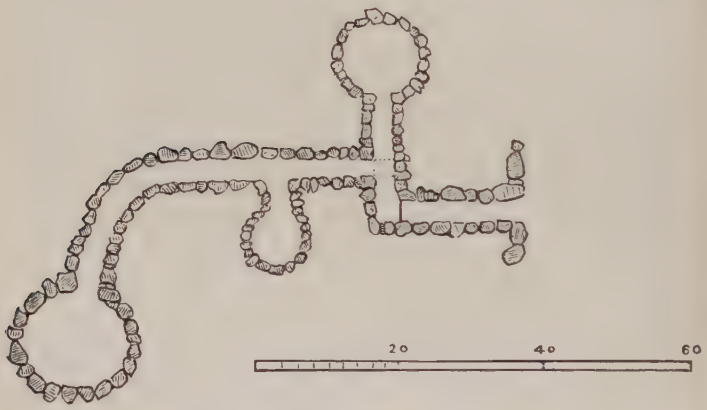
galleries.* Souterrains are found apart from raths in isolated places in many parts of Ireland. They are very similar to those found in Scotland, where they are known as 'eirde houses,' 'weems,' or 'Picts' houses,' and also to those found in Cornwall, which seems to point to a common origin for all. 'The only slight difference between the Irish and the Scotch,' says Dr. Munro, 'is in the extent of curvature of the main gallery, which appears to be less pronounced in the Irish souterrains.' He also points out that they differ in being so often found in connection with raths, as among the Scotch examples 'only one instance is known inside a fort—viz., that in the ancient fort known as Macbeth's Castle on Dunsinane Hill.'† Underground dwellings have been used by primitive races everywhere—in Asia, Africa, and America, as many travellers testify.

Gurteen Rath is situated about four miles from Mullingar. Within it is an interesting souterrain, of which the accompanying figure is a plan. The entrance is on the east side, and the passage is 17 feet long, 3 feet wide, and 3 feet high. At the end a step of 10 inches, and at the same time an additional rise in the height, give an elevation to the roof of about 6 feet; to the right is another passage leading to a circular chamber 7 feet high. The main passage takes a curve to the west, and at 12 feet a short passage leads to another circular, but smaller, chamber. Continuing, and making a full distance of 46 feet, the main passage ends in a third, and largest, circular chamber, 7½ feet high and

* *Journal* R.S.A.I., 1885, p. 362. † *Prehistoric Scotland*, p. 352.

10½ in diameter. The chambers are of the ordinary bee-hive pattern.*

The date of the Irish souterrains is as difficult to determine as that of the raths themselves. From their similarity to the sepulchral chambers it has been thought by some that they were constructed by the same race of people and about the same time. But



Plan of Souterrain, Gurteen Rath, near Mullingar.

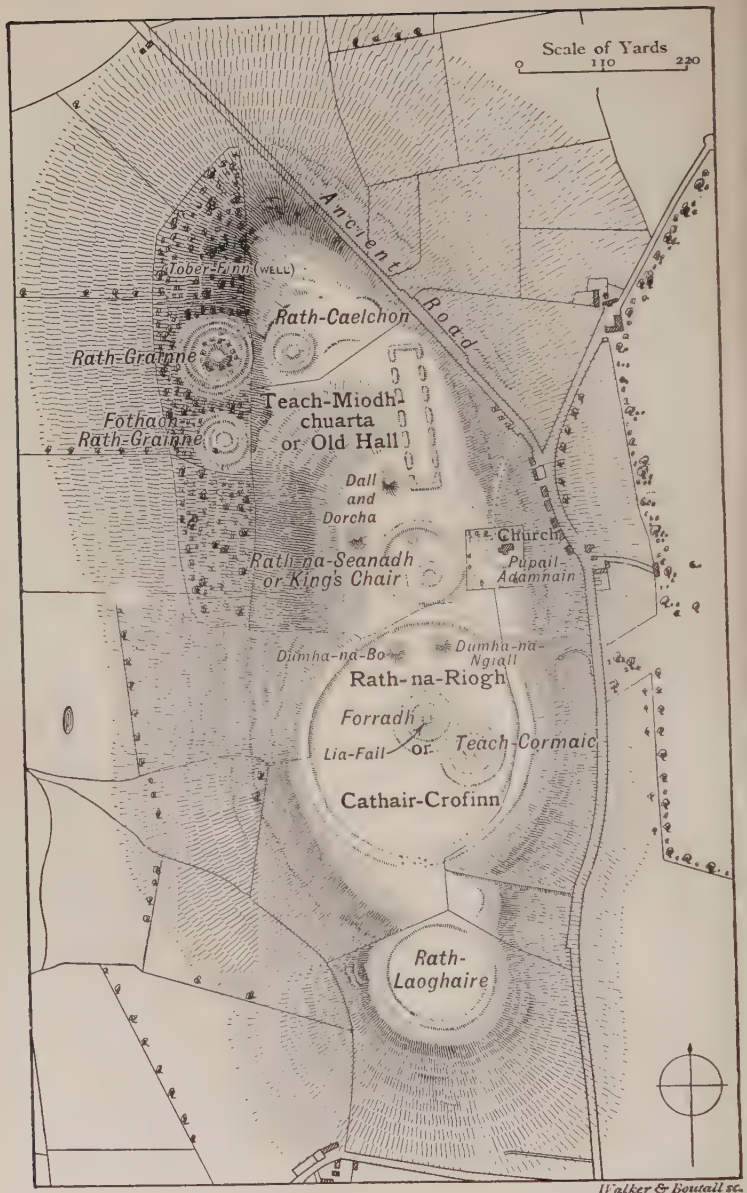
there are essential points of difference between them: souterrains are generally much more complicated in plan, and were evidently designed to be defended; they are underground, whereas the sepulchral chambers are under raised mounds; the latter are megalithic, while, as a rule, the former are microlithic, although in the case of the Doon souterrain, stones 9 and 10 feet in length

* For a full account of this structure see a Paper by the Rev. William Falkiner, M.A., *Proc.* R.I.A., vol. v., 3rd series, p. 211.

were used.* The presence of Ogam stones in some, as has already been mentioned, would point to a period for their construction subsequent to the use of these stones as monuments. Whatever the date of the construction of these places of security may have been, there can be very little doubt of the necessity for their use at least in early mediæval times. When we take into account the lawlessness, and the insecurity and indifference to human life during the Norse period of invasion, which, as the Annalists fully testify, were only too common under the rule of irresponsible petty kings and chiefs, we can readily understand the necessity of refuges such as the forts and underground chambers afforded, by which the construction of some may perhaps be accounted for.

Royal Residences.—Among the royal residences mentioned in early Irish records, the Hill of Tara, in County Meath, is the most celebrated. From the earliest period of which we have even traditional history, down to the middle of the sixth century, it appears to have been a chief seat of the Irish kings. Here, every third year, was held the great national convention called the 'Feis of Teamhair.' Shortly after the death of Dermot, the son of Fergus, in the year 563, the place was deserted, in consequence, according to the *Annals of Clonmacnoise*, of a curse pronounced by St. Ruadan, or Roadanus, of Lorrha, against that king and his palace. After thirteen centuries of decay and neglect, the chief monuments for which the hill

* *Journal* Roy. Soc. of Antiq. Ir., 1860, p. 222.


Scale of Yards
0
110
220
Ancient Road
Tober-Finn (WELL)
Rath-Caelchon
Rath-Grainne
Teach-Miodhchuarta or Old Hall
Fothach-Rath-Grainne
Dall and Dorcha
Church
Rath-na-Seanadh or King's Chair
Pupail-Adamnain
Dumha-na-Bo
Dumha-na-Ngiall
Rath-na-Riogh
Forradh
Lia-Fail
or
Teach-Cormaic
Cathair-Crofinn
Rath-Laoghaire
Walker & Boutall sc.

Plan of Tara.

was at any time remarkable are still to be traced. They consist, for the most part, of circular or oval enclosures and mounds, within, or upon which, the principal dwellings of the ancient royal seat were situated. The accompanying Plan of Tara is adapted from the Ordnance Survey map, upon which the names were laid down by Petrie and O'Donovan, after a careful study of some ancient Irish records. In these were found most minute descriptions, with occasional plans of the various monuments as they existed previous to the twelfth century.

The Forradh, Tara.

The rath called *Rath na Riogh*, or *Cathair Crofinn*, appears originally to have been the most important work upon the hill, and, according to tradition, the oldest. It is of an oval form, and measures in length from north to south 853 feet. The ditch is 4 feet deep; the rampart, greatly reduced, is but 6 feet high, and appears in part to have been constructed of stone. Within its enclosure are the ruins of the *Forradh*, or 'Place of meeting.' The mound of the Forradh is of considerable height, flat on the top, and encircled by

two lines of earth having a ditch between them; its greatest diameter is 296 feet, and across the inner circle 88 feet. Set in its centre, as already stated, is a very remarkable pillar-stone, supposed to be the Lia Fail, or Stone of Destiny (see p. 8).

Teach Cormaic, lying to the south-east of the Forradh, to which it is joined by a common parapet, may be described as a double enclosure, the rings of which upon the western side become connected. Its diameter is about 140 feet. To the north of these and within the enclosure is a small mound called *Dumha na nGiall*, the 'Mound of the hostages,' a characteristic example of its class.

Without the enclosure to the north is *Rath na Seanadh*, the 'Rath of the Synods,' which derives its name from the synods held here by St. Patrick and his successors, but it is of much older date. Among the trees to the north-west of the hill are two forts, *Rath Grainne* and *Fothach Rath Grainne*, respectively. Rath Grainne is recorded to have belonged to, and to have been named after, Grainne, a daughter of King Cormac Mac Art, and wife of Fin Mac Coul, whose well-known story we have already referred to. To the east of these is *Rath Caelchon*.

The ruins of *Teach Miodhchuarta*, the Banqueting Hall of Tara, occupying a position a little to the north-east of *Rath Riogh*, consist of two parallel lines of earth, running in a direction nearly north and south, and divided at intervals by openings which indicate

the position of the ancient doorways. The entrances appear to have been twelve in number, six on each side; but as the end walls, which are now nearly level with the ground, may have been pierced in a similar way, it is uncertain whether this celebrated hall had twelve or fourteen entrances. It measures 759 feet long by 90 feet externally, and 45 feet internally. It was probably divided into three sections, and was evidently intended for the accommodation of a large number at the same time. From the MSS. that have come down to us, we have reason to suppose that the songs of the old Irish bards, descriptive of the royal feasts of Teamhair, are not the fictions that many people are ready to consider them. If, upon viewing the remains of this ancient seat of royalty, disappointment is felt, and even the tales of its former magnificence questioned, it should be remembered that, since the latest period during which the kings and chiefs of Erin assembled here, thirteen centuries have elapsed, and our surprise will not be that so few indications of ancient grandeur are to be found, but that any vestige remains to point out its site. It is a matter greatly to be regretted that, such as they are, the remains have been much interfered with in the last couple of years by the excavations of a small set of irresponsible enthusiasts, searching for the 'Ark of the Covenant'!

Emania.—We can but briefly refer to a few of the many other motes celebrated in past times. A residence of the Ulster kings was Emania, better known as Navan Fort, two miles west of Armagh. It is enclosed

by a rampart, elliptical in shape, which covers an area of about twelve acres. The east side of the great entrenchment is much cut away, but the west side is fairly preserved. One of the inner mounds is comparatively perfect; it measures about 220 feet in diameter, and rises to a height of 138 feet from the lower base of the fort. Founded, according to the usual authority, by Queen Macha in 300 B.C., it remained for over 600 years the seat of royalty. Here, too, the Red Branch Knights, whose deeds are celebrated in Irish romance, were established under King Conor Mac Nessa in the first century.

Rath of Downpatrick.

Rath of Downpatrick.—This was known in past times as 'Rath Celtchair,' after a hero of the Red Branch Knights, who dwelt here. It is one of the finest motes in Ireland, and consists of a mound 60 feet high, 2100 feet in circumference, surrounded by triple ramparts, one of which is 30 feet wide.

Hill of Ward.—The Hill of Ward, near Athboy, was the site of the Palace of Tlachtga, where the great festival of Samhain, the end of summer (Nov. 1st), was

celebrated. Here the sacred fire was lighted, and sports and games held for three days before the eve of the festival and for three days after. At Teltainn, now Teltown, was another great palace where, from a remote period, a great fair was held on August 1st, instituted, it is said, by Lewy, in honour of his foster-mother, Taillte, daughter of the King of Spain. Games of all kinds were celebrated, and chance marriages made, some of which practices came down to modern times.

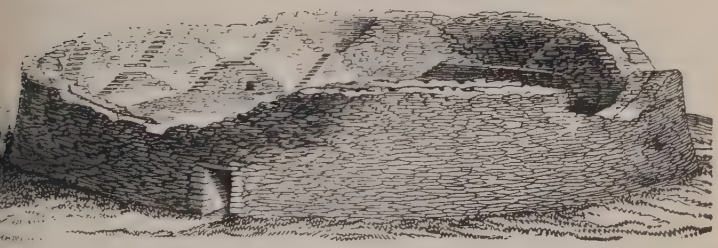
Naas Rath.—The great rath at Naas was the ancient seat of the kings of Leinster, the place of assembly of the chiefs of the province, and continued so until the tenth century. The Hill of Allen, about eight miles to the west, was another seat of the Leinster kings. Here, we are told, dwelt Fin Mac Coul and his companions in the reign of Cormac Mac Art; but the remains of the old mound were nearly destroyed when erecting the modern monument on the summit of the hill. About the same distance south-west of Naas was Dun Aillinne, a third of the royal seats of Leinster. This crowned the Hill of Knockaulin, and the earthen rampart of the fort still surrounds its summit. Many of the motes were used also as places of burial, and we find recorded instances of such within the mound. Remains of burials have frequently been discovered; and these have a special significance to which we have referred in the previous chapter.

Caher or Cashel.—Where stone was abundant, as in Kerry, Clare, the Arran Islands, Mayo, Sligo, and other districts, the defences consisted of walls of dry masonry

called *Cathairs* (Cahers), or *Caiseals* (Cashels). Many of these are found on projecting headlands, or on steep precipitous cliffs, the line of defence crossing and enclosing a portion of land that had a natural protection seawards. Cashels existed too in exposed situations on hill-tops and bleak uplands. The walls usually show that two faces were built many feet apart with a batter, and the interior filled up with a mass of rough rubble which, in settling, often brought destruction on the walls. Others, however, were constructed of two or more walls lying close together and apparently forming one mass, reaching a thickness of 16 to 18 feet. The inner wall was formed into flights of steps leading to a platform lower than the outside wall, and on which a stand could be taken for defence. The gateways are of particular interest and of varied features; the more general kind have inclined sides, a heavy lintel, and a regular course of masonry through the wall. Passages and chambers exist within some of these cashels, intended, no doubt, like the souterrains, as places of retreat in time of danger. These stone forts were sometimes defended by outer works, as in the case of Dunbeg (Kerry) and Moghane (Clare), or by a *chevaux-de-frise* of sharp stones set in the ground, as at Dun Ængus and Dubh Caher in Aranmore, Ballykinvarga in Clare, and Dunamoe in Mayo.

Many of the cashels contain small stone-roofed buildings called *Clochauns*, or bee-hive huts. These are circular or oval in plan, and the walls converge upwards by the gradual approximation of the horizontal layers of stones until the top is reached and closed by a single slab, as in the case of the chambers in the tumuli.

Examples of these singular structures are to be found in Kerry, Aranmore, Inismurray, and elsewhere. They are of especial interest, not only as dating from pre-Christian times, but because they were adopted by the early missionaries, with such modifications as necessity required, as models of the monastic cells and oratories. The circular bee-hive hut was necessarily of very moderate dimensions; but the difficulty of space was sometimes overcome by connecting two or three



Staigue Fort, Co. Kerry.

together by short passages, as in the clochauns in the neighbourhood of Dingle. The bee-hive cells in this district are among the most remarkable now remaining; some of them contain souterrains with a trap-like entrance from the floor.

Staigue Fort, the most perfect example of the caher or cashel now existing in Ireland, is about fourteen miles from Waterville, on the road to Kenmare. The plan is nearly circular; it measures 114 feet exterior diameter, and the enclosed space is 88 feet from east to west. It is built of schistose slate, and the spaces between the blocks are filled with spawls of the same rock.

The wall varies in height from 10 to 18 feet; it is 13½ feet thick at the base, and about 7 feet at the top, and this is due to the batter or incline of the inner and outer faces. The doorway is 6 feet 2 inches high, 5 feet 2 inches wide at the bottom, and 4 feet 3 inches at the top. In the wall, and with small entrances opening to the court, are two chambers, one measuring 10 feet by 4 feet and 6 feet high; the other 8 feet by 4 feet. The main face of the wall presents a series of ten sets of stairs, leading to narrow platforms, the highest reaching nearly to the top of the rampart. The steps are not uniform; some rise from the base, and some from a few feet above the ground. The plan and execution exhibit great skill in this primitive style of architecture.

One of the most elevated forts in the British Isles is that on *Caherconree*, the most westerly height of the Slieve Mish mountains. It stands on the shoulder of the mountain, about 10 miles south-west of Tralee, in a commanding situation, at an elevation of 2050 feet, and with a magnificent outlook. The cashel is about 350 feet long, and forms the base of a triangular spur of the mountain, the sides of which descend in steep cliffs for about 200 feet. The rampart is terraced, but is now in a ruinous condition; its present thickness is 16 feet 9 inches at entrance, and its greatest height 10½ feet. It was defended by a fosse and vallum of earth and stone, the top of which ran at about 40 feet from the rampart.*

* For an interesting account of this fort by Mr. P. J. Lynch, see *Journal* Roy. Soc. of Antiq. Ir., 1899, p. 5.

Clare is very rich in stone forts, the remains of about 400 of which are known. Most of these are in the Burren district; they are akin to the great duns of the Aran Islands, and were evidently built by the same race of people. One of the most remarkable of the Clare forts, and one of the largest fortifications of any class in Ireland, is *Moghane*, which crowns a low hill in the demesne of Dromoland, a few miles south of Ennis. It is much defaced, and has been greatly neglected in the past. It consists of three stone ramparts; the innermost and the second are nearly circular, and their greatest diameters are 380 and 650 feet respectively. The outer is oval, and was adapted to the contours of the hill; it measures 1500 feet north and south, and about 1100 feet east and west. The united length of the walls is about 7850 feet, enclosing an area of 27 acres. According to Mr. T. J. Westropp, who has made a special study of these forts, and to whom archæologists are indebted for his valuable survey,* the estimated contents of the Moghane walls amount to about 1,177,000 cubic feet of stone. The inner cashel had two entrances, east and west; the second three, the south-west entrance being defended by a small circular fort; the outer wall had three entrances on the north and one on the south, and it was defended without by a small fort, while another within defended the wall on the west. There are no traces of terraces or steps in the inner face, though this may be due to defacement, yet the probability is, as Mr. Westropp says, that they did not exist here. He is also of

* *Journal* R.S.A.I., 1893, p. 281; 1896, pp. 142, 363; 1897, p. 116.

opinion that this great fort was hardly built before the coming of the Dalcassians about 370 A.D.

On the south coast of Inishmore, the largest of the Aran Islands, is *Dun Ængus*, described by Petrie as 'the most magnificent barbaric monument now extant in Europe.' It is built on the very edge of sheer cliffs 250 to 300 feet in height, forming the south and east sides; it is of a horse-shoe shape, and some archæologists think that it was originally oval, and that it acquired its present form from the falling of portions of the cliffs. It consists of three enclosures, and remains of a fourth. The wall which surrounds the innermost is 18 feet high and 12 feet 9 inches thick; it is in three sections—the inner 7 feet high, with ranges of steps similar to those in Staigue fort. This enclosure measures 150 feet from north to south, and 140 feet from east to west. The doorway is 4 feet 8 inches high, and 3 feet 5 inches wide, very slightly inclining; and the lintel is 5 feet 10 inches long. In the north-west side is a passage leading into the body of the wall. The second rampart, which is not concentric, encloses a space about 400 feet by 300 feet. Outside the second wall is a *chevaux-de-frise*, 30 feet wide, formed by sharp stones placed on end, seemingly to hinder the approach of an enemy. Surrounding all is a rampart, nearly destroyed, enclosing a space of 11 acres. Of the same class are Dubh Caher, Dun Onaght, and Dun Eochla, and on Inishmaan Dun Conor.

The Dingle Forts.—For variety and profusion of prehistoric and early Christian remains, that district of

Corkaguiny lying west of a line from Dingle to the north-east entrance of Smerwick Harbour, has no equal in the British Isles. Scattered over its surface is an extraordinary number of cashels, clochauns, pillar-stones, early churches, crosses, and other remains. The fine fortification of *Ballyheabought*, two miles north of Dingle, consists of a stone-faced earthen rampart 12 to 14 feet thick, enclosing an area of about 100 feet in diameter, with a continuous narrow platform about 3 feet above the present level of the court. It is surrounded by a fosse 25 feet in width, the greatest depth being 20 feet. Beyond this is another breastwork, 10 feet thick, faced on the exterior with stones, with a second but smaller fosse without. The entrance was from the west; and the remains show that a massive stone doorway once existed in the ramparts. In the inner area are the remains of several clochauns; the principal one is 18 feet internal diameter; a portion is cut off into a separate chamber; and a low passage connects this with a small semi-circular compartment to the south. Without the group to the north is a row of upright flag-stones forming a passage to a round oblong clochaun to the west. A wall to the south connects the circular group with the rampart, thus shutting off what was probably the women's portion of the fort.

The primitive remains, numbering from seventy to eighty, lying between Ventry and Mount Eagle, which rises over the Blasket Sound to the north of Slea Head, were, for the first time, fully described after a proper survey by Du Noyer in 1858. Of these the Fahan

group of forts and stone huts is the most remarkable, and shows that a considerable population must have inhabited this wild and remote spot at a very early date. At Coumenoole are ten clochauns. Glen Fahan has six forts containing eighteen clochauns, a triple clochaun, and twenty-three others detached. The triple clochaun is known as *Caher Fada an Doruis*, the 'Long fort of the door.' It has been cleared out in recent years. The east and central chambers are connected by a passage 8 feet long; they are circular, and measure 13 feet and 18 feet in diameter internally. The west cell is semi-circular; it is connected with the central by a passage 6 feet long, and measures 10 feet by 14 feet. The main cell is entered from the south-east by a sloping passage; and a winding flight of steps, now imperfect, ran round the roof to the top. In Fahan are four forts containing ten clochauns, a group of seven clochauns, and twelve others detached. These by no means exhaust the remains of the settlement, which has been called, by way of archæological pre-eminence, 'The ancient City of Fahan.'

The fort of *Dunbeg*, about two miles east of Slea Head, was formed by erecting a massive stone rampart 15 to 25 feet in thickness across an angular headland. It curved slightly to the east and touched the cliff at both sides; it was no doubt originally of greater length, as the sea has, in recent times, noticeably gained upon the coast. Near the middle the wall is cut by a passage, the entrance of which is 3½ feet high, 3 feet wide at the bottom, and 2 at the top. The passage widens to about 8 feet, and becomes corbelled. The

original entrance was 7 feet wide; but it was thus reduced, and a barricade about 4 feet thick added, leaving a space between it and the original wall to the right and left of the entrance for defence with a heavy timber log. The recess to the right was longer than that to the left, to receive the log when not in use. A hole in the top of the wall opened into the recess, in order to wedge the block when in position. About half way through the wall were similar recesses for a like purpose. Two guardrooms in the walls opened into the court within. These had interesting features in the shape of 'squints' formed in the stonework communicating with the passage. A clochaun stood inside the fort close to the cliff on the south-east. The plan of the chamber, three sides forming that of a regular figure, and the fourth curved, is said to be unique. When repaired in recent years, a subterranean passage was discovered from the entrance outwards. A series of three earthen mounds with intervening fosses formed an outward defence. A passage ran through stone gateways in each vallum, the remains of two of which exist.*

About half a mile to the west of Dunbeg is *Cahernamactirech*, the 'Fort of the wolves.'† The walls vary from 11 to 18 feet in thickness, enclosing an area of about 100 feet in diameter. Three sections of the wall, occupying the greater portion of it, were pierced by

* See *Journal* Roy. Soc. of Antiq. Ir., 1898, p. 325, for notes and admirable plan, by Mr. P. J. Lynch.

† Mr. Stewart Macalister says this should be Cathair na Mairtinech, the 'Fort of the Martins.'

narrow passages, and a number of clochauns occupied the area within. This was a most interesting fortification, and had some unusual features; but it has fallen into great dilapidation.

Du Noyer was of opinion that the Fahan settlement dated from the Firbolg occupation. O'Curry combated this in supporting the theory that it was of primitive Christian origin and a monastic establishment.* Mr. Stewart Macalister is of opinion that 'the clochan period of the settlement probably extends from a little before the introduction of Christianity into Corkaguiney, down to a comparatively recent date in the Middle Ages.'†

Dunamoe Fort, Co. Mayo.

At Dunamoe Point, on the north-west coast of the Mullet peninsula, are the remains of a fine cashel, which crosses the neck of the headland. The wall is 210 feet long, 8 feet thick, and 18 feet high in places; but it is in a state of dilapidation. Without is a fosse and a slight abatis. Within the wall are the remains of three clochauns, and a ruined circular fort, about 100 feet in diameter.

* *Manners and Customs of the Ancient Irish*, iii., pp. 56–72.

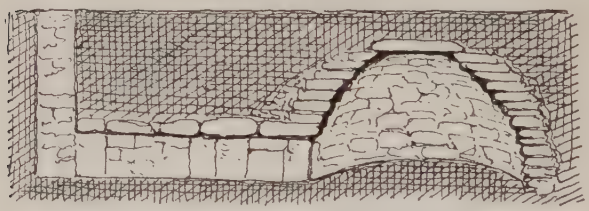
† *Trans.* Roy. Ir. Acad., vol. xxxi., pt. vii., p. 334.

The *Island of Inismurray*, lying about 4½ miles off the coast of Sligo, contains within its narrow limits an extraordinary collection of antiquarian remains. These are enclosed in an area measuring 175 by 135 feet, formed by a cashel of rude stones, which varied in height from 7½ to 13 feet, and from 7 to 15 feet in thickness. In 1880 the Board of Public Works undertook the restoration of these remains. The features of the cashel were much interfered with; it was made of nearly uniform height, parts being pulled down to build

The 'School House' (Bee-hive hut), Inismurray.

up others which had fallen; the traces of the interior steps were converted into niches to hold cross-inscribed stones, and the southern entrance was entirely rebuilt. There were four entrances to the cashel, with probably a fifth on the south-west face. Two of these in the north-west side are of special interest. The approach from without is through a low doorway about 2½ feet high and 2 feet wide at lintel, but slightly more at bottom.

Passing through 3 feet of a passage, a dome-shaped chamber is entered 6 feet in diameter and 7 feet high. Across the middle the floor rises with a perpendicular face of earth 2½ feet high, the original elevation being probably greater. From the chamber the passage inwards is the same as the outer. These are similar in plan to the passages and chambers of many souterrains, and were probably constructed for defensive purposes. The interior of the wall showed that it was stepped similar to Staigue Fort. The area of the court was divided into four unequal sections by stone barriers.



Section of an ordinary underground beehive-shaped hut.

There are several chambers in the walls; but for what purpose they were originally intended it is now difficult to determine. In the area are three clochauns. One is 13 feet in diameter, and from floor to top of vaulted roof 14 feet. There is a projecting ledge on one side, intended for rest or sleeping. The doorway is massive, and measures 3 feet 8 inches high, with sides inclining from 2 feet 2 inches to 1 foot 9 inches. The shape is oval, and the walls commence to slope a short distance from the ground, and approximate by overlapping in the usual way. It is known as the 'School House'; and as

it evidently belongs to the primitive class of structure, it forms an interesting link of pagan days with the first missionary residents on the island. Here, as on the Island of Aran and elsewhere, as Petrie points out, the early Christians utilised the pagan forts in founding their religious establishments. The walls they raised around others differ materially from the primitive cashel in strength, height, and the characteristic features we have described.*

The *Grianan of Aileach*, the ancient seat of the O'Neills, kings of Ulster, is a fort on the summit of a hill 803 feet high, about 5½ miles from Derry, overlooking the east shore of Lough Swilly. It consists of three extensive circular ramparts, greatly dilapidated, formed of earth mixed with stones, the outer enclosing an area of 5½ acres. Within the inner breastwork is a cashel, a circular wall about 17½ feet high, enclosing an area of 77 feet in diameter. It has an average thickness at the base of 13 feet, and is not quite perpendicular, but has a curved terrace-shaped slope, like Staigue Fort in Kerry. On each side of the entrance gateway are passages within the thickness of the wall, extending in length to one-half of its entire circuit. These do not communicate with the gateway, but have entrances from the area at their northern and southern extremities. The passages are 5 feet high, and over 2 feet wide, with sloping sides, the roof being formed of stones laid horizontally. The entrance gateway is 4 feet 3 inches wide at the base; the sides

* *Eccles. Arch.*, p. 445 *et seq.*

are inclined, and the original height was probably 6 feet. On each side is a reveal intended to receive the doors which barred the passage. This great residence was destroyed by Murkertagh O'Brien, king of Munster, in 1101. The Cashel was restored by Dr. Bernard, of Derry, during the years 1874–8.

Out of the mass of myths and legends concerning primitive times in Ireland, it is invariably difficult, if not impossible, to disentangle the slight threads of fact from the web of romantic fables of bards and chroniclers. These have their value, however, when supported or tested by the evidence gleaned in the actual field of archæological investigation. Isolated geographically as Ireland was, she was yet the shore upon which the successive waves of influence sweeping over Europe spent themselves. She was, as a rule, not only late in being brought under the sphere of new influences, but some had especial opportunity of development, and many retained their hold and flourished long after they had ceased to exist elsewhere. The extent of the forts of Ireland, and the length of time they remained in occupation, is an example of this.*

Most writers in the past have attributed the stone forts of the west of Ireland to the Firbolgs of the first century of our era, basing their conclusions on a bardic legend recited a thousand years after their invasion. But the forts are too numerous, and many of too vast proportions, for the stricken remnants of a race to have raised in their defence when driven to their last

* Donough Cairbreach O'Brien (d. 1242) built a rath, and Brian Boru repaired many of the forts of Munster in his own lifetime.

extremity on the wild shores of the Atlantic. The far-fetched theory, too, like many other such, that they were erected by sea-rovers to hold their spoils, is equally untenable for the same and other very apparent reasons. The absence of water-supplies within the forts, which has puzzled some, is paralleled in the British and other European forts, and was no doubt a precautionary measure to prevent the pollution of springs and wells. It is an indication, also, that the forts were not intended to stand a prolonged siege, a practice in warfare of a later time, but were raised as a protection against raiding and sudden assault. Their height above the sea was to give greater security, and their commanding sites, with due precaution in watching, prevented the dwellers being taken unawares. When life and property were unsafe, the desire for security, as well as social habit, gave rise to these works. The dwellers fortified their camps for themselves and their cattle, moving about freely in times of peace, and withdrawing to these strongholds in times of danger. They were as much a necessity in early days as the walls and bastions defending the towns in the Middle Ages. Their extraordinary number, out of all proportion compared to Scotland with its 1300, testify to the fact that the land was not a peaceful land long before the coming of the Dane. It is difficult in the present state of our knowledge even to approximate the date of their first introduction, as it is difficult, if not impossible, to assign a definite date to any archæological period in Ireland. The Irish forts are among the finest of a type of primitive defences extending across the continent of Europe from the Atlantic to the Black

Sea and the Mediterranean shores of Greece. The construction of the walls in sections, and the passages and chambers, link the western forts through similar, though more perfect, features with the cyclopean walls of Tiryns, Mycenæ, and the Punic cities of North Africa. The cashels, the mounds, and the hill forts with their encircling ramparts have their counterpart in the middle latitudes of Europe, in the lands once dominated by the Celt, and which cover a period from the Bronze Age, at least, to the days of the Roman occupation. In Ireland their use ranges from prehistoric times down to the Middle Ages; and some were occupied for ordinary dwelling purposes down to modern times.

CHAPTER VII.

THE STONE AGE.

FLINT ARROW-HEADS—STONE CELTS—AXE-HAMMERS.

PRIMITIVE man everywhere seems to have used stone, wood, and bone in the manufacture of weapons before he advanced to a knowledge of the use of metal. The terms 'Stone,' 'Bronze,' and 'Iron,' adopted first by Scandinavian archæologists, are now generally used to signify the successive 'Ages' of human development from prehistoric into historic times. The vast quantity of stone and bronze objects found in Ireland are conclusive that at certain remote periods they were in general use. It is therefore reasonable to suppose that stone only was at one time used, and that bronze, on account of its superiority, in time superseded the older material. Though each prevailed, and was characteristic of its own period, yet no hard-and-fast line can be drawn between them, and the overlapping occurs everywhere. We have evidence in lake-dwelling remains to show that, after iron was introduced, stone, bronze, and iron implements were used simultaneously. Stone

weapons were in use down to the Middle Ages, and stone hammers were used in remote places down to modern times.

The antiquity of man in Ireland has long been a subject of general archæological interest and discussion. He is considered by some authorities to have been contemporary with the *cervus giganteus*, whose remains have been discovered in such large numbers in the country. These have been found in the crannogs of Cloonfinlough, Loughrea, and in the caves of Ballynamintra. Professor Leith Adams and Messrs. Kinahan and Ussher, in the exploration of the latter, found the bones in connexion with 'battered and chipped' hammer-stones, which they had little doubt was the work of man to extract the marrow.* They were found mixed with the remains of Neolithic fauna, red-deer, horse, ox, grizzly bear, wolf, badger fox, dog, etc.

The evidence of the existence of Palæolithic man lies deep in the drifts or raised banks of ancient rivers, or far below the present floors of caves. If he ever existed in Ireland, he has left no conclusive evidence of his presence, so far as our knowledge goes. The relics of Neolithic man lie near the surface, and evidence of his existence has been found throughout the length and breadth of the land. When he started in Ireland, he is supposed to have had a considerable knowledge in the use of stone weapons and skill in their manufacture. In fashioning flint implements, in the selection of the hardest and best kinds of stone,

* *Scientific Transactions*, Roy. Dub. Soc., vol. i., 2nd ser., p. 200.

in shaping and polishing these for various uses, he showed an intelligence and skill of no mean order. Finished flint articles have been found in the north of Ireland in thousands; and the refuse of their manufacture exists in large quantities. Few countries equal Ireland in the number of stone implements which have been discovered of every kind, or can show greater excellence in their style and finish.

Flint Arrow-heads.—Flint as the hardest stone and the readiest to chip was much sought for; and as Antrim furnished this in nodules in the Chalk formation, it was there worked in great quantities. Knives, scrapers, arrow- and spear-heads, chisels and axe-heads were fashioned in many places, especially on the coast where the flint accumulates along the undercliffs, or on the raised beaches of Larne, Kilroot, and Whitepark Bay. In these places hundreds of flakes may be gathered in a short time—the waste material from the workshops of the makers of flint implements that once existed on these sites. At Portstewart and Castlerock, on the coast of Donegal, at Dundrum, Co. Down, and along the Bann valley, great quantities of worked flints have been found, indicating a wide area for the manufacture of weapons.

An examination of flint flakes will show certain general characteristics which, when found existing in a large number of instances, are conclusive that they are the result of manipulation and not of natural agency. Hammer-stones and cores are also found in numbers on these sites. The latter are the lumps from which the flakes

were struck; and the hammer-stones, generally pebbles of any hard stone, such as quartzite, basalt, or granite,

Fig. 1.
Spear- or Javelin-head—full size.

Fig. 2.
Spear-head—Scale, two-thirds.

show signs of use in their chipped ends. Scrapers, so much used in the curing and dressing of skins, and

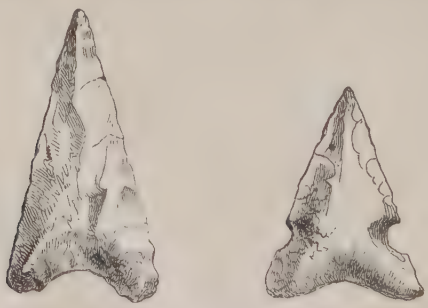
such like purposes, are also found in great numbers and variety. The women of the Eskimo and other Arctic tribes, at the present day, use flint scrapers in dressing the skins of animals and birds. These rude instruments have been found in quantities in the hut-sites on the coasts of Down, Antrim, and Donegal, and other places that marked the wanderings of Neolithic man.

Arrow-heads have been found in such quantities, and of such variety, that we can here only give a general outline of their classification. It has been estimated that about ten thousand exist in collections at the present time, not including those which have been sent out of the country, which probably amount to as many more. In size arrow-heads measure from about 1 inch to 4; these latter, indeed, and those up to about 7 or 8 inches long, must have been used as javelin or spear-points; but, as there is no hard-and-fast dividing line between them, all may be included in a general description. Some have been found under one inch in length, but these are not common. The spear-head (fig. 2) in the National Museum is 6½ inches long and nearly 2 inches broad at the widest part. It was rubbed smooth after chipping, and is, perhaps, the most perfect of the class yet found. Owing to their great variety of form, it is difficult to make a classification of arrow-heads simple enough to cover all. For general purposes, however, a three-fold division will suffice: leaf-shaped, triangular, and stemmed. An examination, however, of any good collection will show that further sub-division is needed under each head, if a thorough classification and arrangement are required. The *Leaf-*

shaped arrows are very varied in shape and size; and to this class belong some of the largest, many of them showing the most perfect manipulation and delicacy of

Leaf-shaped Arrow-heads.

touch in regard to the chipping. As the name indicates, these are in general shaped like a leaf; but this class also includes a large variety of those of a modified leaf-



Triangular Arrow-heads—first type.

form. They were the easiest to make, and were probably the earliest in point of time.

Triangular arrow-heads are very numerous, and much more so in Ireland than in England. Most of the

Triangular Arrow-heads—second type.

objects of this class have an inward curve in the base, or are notched, leaving barbs or wings between which

Various types of Stemmed Arrow-heads.

the split-shaft was placed. The *Stemmed* arrow-heads were probably a development from the leaf or triangular

types, and their advantage over them is obvious. The head was kept in its place and prevented from splitting the shaft, while the barbs rendered the weapons more effective in war or in the chase. These vary with long or short stems: some are without barbs; others have barbs and stems of equal length; while varieties may be noticed in the edges being straight, curved either concave or convex, some having a combined or slightly S-shaped curve.

Owing to the perishable nature of the shaft, the discovery of a perfect arrow is exceedingly rare. There are, we believe, only two recorded instances in Ireland—one (here figured) in the King's County, in Ballykellan bog, and the other near Glenarm, Co. Antrim. The head seems to have been fastened into the split of the shaft by a kind of cement, and then tied with sinew.* Much superstition has been attached to arrow-heads in Great Britain and Ireland. They have been regarded as 'elf-shots' or 'elf-stones' cast by the fairies at men or cattle: hence they have been often worn as charms, or used as such in curing bewitched cattle by putting them into their drink, which was supposed to remove the evil.

Mounted Arrow-head.

Knives of flint are also found; the most finished examples are triangular in shape and pointed, with straight back, bevelled edge, and tang for insertion into a handle. Saws are numerous, and the serrated edges

* *Catalogue* R.I.A., p. 254; *Journal* Roy. Soc. of Antiq. Ir., 1885, p. 126.

were either originally so chipped, or they became so by use. These are widely distributed, and have been found in Egypt, Greece, and through Europe to Denmark and the British Isles.

Flint Knife.

Flaking tools or 'fabricators,' as they are called, were used in the making of flint instruments, examples of which may be seen in the National Museum collection. These are narrow pieces of flint 4 or 5 inches long, with blunt ends and a ridge on one or both faces. A deer's horn or other pointed bone was also used for flaking; the finer work was probably usually done with such tools. The method was by pressure, and the finest flaking can thus be executed. Though this can be imitated with some practice, yet the best work on the faces of arrow- and spear-heads baffles imitation, showing the perfection of workmanship to which primitive man reached. Among other objects are 'bracers': these are pieces of stone rubbed down to a smooth surface and pierced with a hole at each end. They are supposed to have been worn on the wrist for protection against the bowstring when let home.

Stone Celts.—There is a general similarity in type among the stone implements known as celts, or chisels and axes. As no well-defined line can be drawn between these, as the same object could be used as an instrument or weapon, Sir John Evans, in his

exhaustive work on *Ancient Stone Implements*, uses the term 'celt' to include both, and classifies them under three heads: (1) chipped and not ground or polished; (2) chipped, with ground edge only; (3) those ground and polished completely. The last group is further sub-divided into four classes, according to shape. Some Irish archæologists consider that many of our implements present features which make this classification unsatisfactory; but as they are not yet agreed on any classification sufficiently clear and comprehensive, we shall retain the threefold division in our brief description.

The chipped implements are of flint and very rude, thick, and heavy towards the edge, with a blunt point. They resemble the Palæolithic type, and are found in the raised beaches of Larne, and are known as the 'Larne Implements.' Of an equally rude kind are those found in hut-sites round the coast, in the Bann Valley, and elsewhere. Implements of a similar type are found in the shell-mounds of Denmark, in Scandinavia, and other parts of Europe. They are named the 'kitchen-midden' type, and are considered to be the earliest worked by Neolithic man.

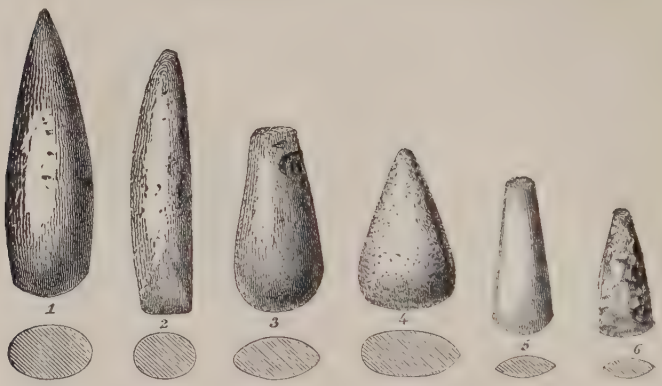
Of the second class many are of flint: the lower part is polished down, giving a fine cutting edge, and the upper portion is left with a rough flaked surface. Many of the larger implements belong to this class, and were the more readily fastened into the haft. These and the polished celts are made of basalt, porphyry, felstone, greenstone, shale, and other rocks; the felstone was much sought for, on account of the fine cutting edge

that could be obtained in sharpening. They vary greatly in size, the average being 6 to 8 inches in length, and in breadth 2 to 3½ inches. The largest yet found is in the National Museum: it is of clay slate and about 22 inches long. They vary greatly, too, in shape, and are ovate—that is, of a somewhat egg-shaped form—or triangular, according to the general cast of the sides and edge.

Polished Celt of Felstone—scale two-thirds.

In the manufacture of these objects the rough shaping was done with a suitable hammer-stone, examples of which may readily be distinguished by rough chip-marks at the ends. The general method of grinding and polishing seems to have been by rubbing the implements longitudinally on a sandstone slab, and the lines of the faces thus made removed by cross or oblique rubbing with a hand-stone. Many of the celts are as highly polished as they could be at the present day, and it is uncertain how, or with what material, the perfect finish was given to them. The smaller specimens were doubtless set in the end of a stick, and used as chisels in the manufacture of wooden vessels or other light

work. Others, there is reason to believe, were simply



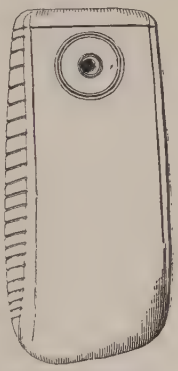
Various Types of Stone Celts—scale one-eighth.

held in the hand, and served the double purpose of cutting instruments and hammers. By the edge, more or less sharp, animal food or integuments might be cut, or at least roughly divided, while by aid of the opposite end, which is invariably blunt or flat, marrow-bearing bones might be smashed. In all probability, however, the great majority had been the heads of axes used for every-day purposes, or as weapons of war. They are very frequently discovered in ancient river fords, the passage of which had, no doubt, been frequently contested. The larger kind were sometimes mounted in a wooden handle; but, as in the case of the perfect arrow, the discovery of a mounted implement is exceedingly rare. A few, however, have

Mounted Celt.

been found; and the accompanying figure shows an example. The primitive inhabitants in our own day of many lands—such as New Zealand—used implements and weapons mounted in a similar manner.

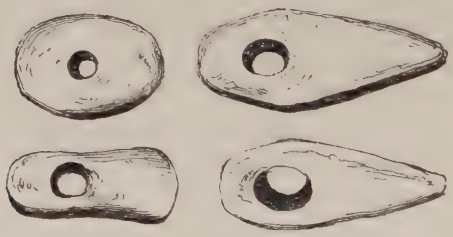
It is most likely that some remains of this class were used as missiles. We read of a missile weapon called the Lia Lamha Laich, *i.e.* a 'Champion's handstone,' which was carried ready for use in the hollow of the shield. It is described by early writers in a manner which shows that it was attached to a line of some kind, and was recoverable after each throw. O'Curry suggests that missiles of this kind were simply our stone celts. There can be little doubt of the correctness of his opinion. In the Academy collection are three stones of that description, which at their narrow end exhibit perforations well adapted for the attachment of a string or line. The largest of these stones is slightly over 3½ inches in length. Each side is crossed by an array of scorings, admirably suited for the purpose of affording a firm grip to a champion desirous of hurling the stone with force. Around the aperture are two engraved circles. The other perforated celts are sharp and well formed, but plain. Each would prove a formidable missile when cast by a trained hand.



Supposed Champion Stone for Casting.

Axe-hammers.—The perforated axe-hammers show an advance in the manufacture of stone implements.

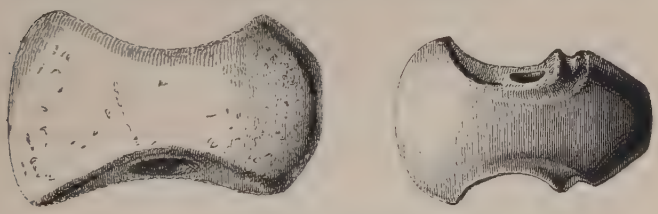
Of these there are several varieties; some, and probably the earliest, are of the celt type; others are blunt at both ends forming true hammers; but the latter type come near to the modern axe-head in shape. They are well-designed, highly polished, and formed of stone selected for its hardness. The spot for the hole seems to have been first chipped; and the perforation was then made by rotatory friction with a suitable stone, piece of bone or wood, and the use of sand and water. The operation was usually done on both sides, as a section of the stone shows that the hole diminishes towards



Perforated Axe-hammers of Stone.

the middle. Many specimens show a cylindrical perforation, the drilling of which could be done with a piece of hollow wood, bone, or metal. Cores cut out in this way have been found in numbers in the Swiss lake-dwellings; but, as far as we are aware, no core of this kind has been found in Ireland. One head with an incomplete perforation may be seen in the Academy collection; this shows the cores, but broken on both sides. Many of the true round hammer-shaped heads are cleanly drilled, and with a metal tool. They are evidently late in date, and were

probably used in the working of the finer metals, gold and silver. Two of the many fine examples in the Academy collection of the axe type are here figured. The larger is composed of serpentine; it is $8\frac{1}{4}$ inches long, and weighs about $6\frac{1}{2}$ pounds. It has a broad hatchet-edge with a heavy head behind the handle. The other,



Perforated Stone Axe-hammers.

found in the Shannon at Athlone, is of hornblendic syenite; it is $5\frac{1}{2}$ inches in length, with grooves round the perforated sides. These are highly polished, and are among the finest specimens yet discovered in the British Isles.

CHAPTER VIII.

THE BRONZE AGE.

COPPER CELTS—BRONZE—ITS ANTIQUITY AND SOURCE—BRONZE CELTS—THE FLAT CELT—THE FLANGED OR WINGED CELT—THE SOCKETED CELT—CELT MOULDS—SWORDS—RAPIERS—BROAD SCYTHE-SHAPED SWORDS—SWORD SHEATHS—THE LISNACROGHERA 'FINDS'—SPEAR- AND JAVELIN-HEADS—ORNAMENTED SPEARS—CRANNOG SPEARS—SHIELDS — BRIDLE BITS — CALDRONS — TRUMPETS — ORNAMENTS, BRONZE AND GOLD — TORQUES — LUNULÆ — TIARAS — FIBULÆ — THE BROIGHTER GOLD 'FIND.'

THE Early Irish traditions—so insisted on by many writers—of the successive invasions of Ireland by various races may contain a kernel at least of the truth of successive waves of the men of the Stone Age, overcome in time by a race stronger and better equipped with metal weapons.

The discovery of metal for the manufacture of implements marked a new epoch in the history of man. Copper was evidently known long before the discovery was made of using it with an alloy; but, owing to its softness, it could not supersede the use of stone. The question of whether there was, generally speaking, a Copper Age is still a matter of archæological controversy. The number of copper implements found is small, compared to the vast quantities of bronze of great variety that have been discovered. Flat copper celts have been found in Cyprus, the chief source of supply of the mineral to the Aegæan,

in Hissarlik, in Hungary, Denmark, Sweden, France, Italy, and in Central India; but these latter are thought to be of late date, having been associated with objects of silver.

The National Museum, Dublin, contains 84 copper celts, the collection having much increased since the compilation of Wilde's *Catalogue*, when the number stood at 30. The number found in Ireland up to the present time is about 150; and specimens have been discovered in about half the counties and in all the provinces. The copper celts are of a primitive type, and were evidently modelled after those of stone. The smallness of the number may be due either to the probability of their being recast in the manufacture of tools and weapons on the discovery of bronze; or, that the metal proving soft, it was not largely used, being inferior in consistency to stone. Bronze celts have been found of a primitive character similar to the copper, so that they may have belonged to the same period of time. From this and other considerations it has been urged that a Copper Age did not exist in Western Europe, though such, no doubt, prevailed in the countries bordering on the Mediterranean, especially in Egypt. The latter country was in the Neolithic Age under the 'New Race'; and copper came into use at the end of this Pre-dynastic Period.

In all copper celts hitherto analysed in Ireland, a very small quantity of tin has been found, varying from about one per cent. to a mere trace. Whether the presence of tin in the copper is intentional or accidental is not definitely known; but it seems likely

to have existed in the ore with other impurities.* Copper seems to have been in general use in Ireland: for, among other objects of this metal, awls, a halbert, and blades of knives have been discovered. The existence of native ore renders it likely that it was worked as soon as its properties were known; and this is supported by the fact that the word *umha*, the Irish name for copper, is pure Celtic. Tin exists in small quantities in Ireland, especially in the sand and gravel deposits of the Wicklow streams; but as to the method and means of mining, and how far it was carried on in those early days, we know nothing definite. Copper workings have been discovered, of a primitive type, in Cork and Kerry, containing stone implements among the refuse.

The discovery of bronze marked an important epoch in the progress of human development; and it would be difficult to estimate its full value as an element in the economic and social conditions of primitive man and early civilizations. In Ireland as elsewhere, owing to its advantages, bronze in time came into general use in the manufacture of weapons, domestic implements, and articles of personal adornment. These passed through various stages of development; and the use of bronze, as the general material for all such articles, became in time very widespread. The percentage of tin in bronze varies, and the proportion does not appear to be absolutely fixed. About 10 per cent. seems to

* For a full description of Irish copper celts, see a paper by Mr. George Coffey in the *Journal* of the Anthropological Institute, vol. xxxi., p. 275.

have been the average for the best bronze. Some Irish bronze implements yielded, on analysis, 13·88 per cent.; the Mycenæan bronze which Schliemann had examined gave 13 per cent. of tin; and some bronze from Hissarlik gave 4 to 6 per cent. The number of moulds discovered for various weapons shows that smelting was practised in Ireland; but, like the mining, it is difficult, if not impossible, to ascertain the exact method of working, and the extent to which it was carried on.*

Archæological opinion is divided as to the origin of bronze. It has been variously attributed to the high table-land of Central Asia, to India, to Siberia, and to the original inhabitants of the lower Euphrates valley, while some writers claim for it an Etruscan origin. Its antiquity is, however, great; Dr. Flinders Petrie found celts in the tombs of Medum in Egypt, structures which he considers lead back to the Third Dynasty; in the Fourth Dynasty, bronze came into general use.† It was characteristic of the whole of the Mycenæan civilization, and prevailed throughout the Homeric period, though iron was then known. Bronze spread to Europe from south to north along the established trade routes; and the theory, once held, that a Bronze Age developed independently among the rude races of Northern Europe is no longer accepted. The discovery of well-wrought weapons in early graves shows

* For an account of the 'Early Metallurgy of Copper, Tin, and Iron, in Europe,' see a paper by W. Gowland in *Archæologia*, vol. lvi., p. 267.

† *Ten Years' Digging in Egypt*, p. 144.

that the inhabitants of the British Isles first knew bronze, in its best form, as a foreign introduction, before they manufactured the metal for themselves. Bronze was, in time, superseded by iron; but not until the discovery was made of tempering or hardening it by plunging the hot metal into cold water. Iron was used by the Egyptians in the period from 3800 B.C. to 3000 B.C.; in depicting weapons or tools, it was the custom to paint iron blue or black—the colour by which it was known—and this is seen in the paintings which have been discovered of the time. 'Iron,' says Dr. Budge, 'was certainly known to the Egyptians as early as the Fifth Dynasty; and, from the fact that iron plays a great part in ancient Egyptian myths, it is probable that it was known by them at a far earlier period.'* Metal tools of the best kind were known in Egypt at an early date. Dr. Petrie shows that drilling, sawing, and lathe-work were done by the pyramid-builders on the hardest stone with fine cutting points. He considers modern drill-cores far inferior to those discovered in Egypt. 'By the side of the ancient work,' he says, 'they look wretchedly scraped and irregular; . . . the fine work shows the marks of just such tools as we have only now re-invented.'†

Bronze Celts.—The most common weapons or implements of bronze found in Ireland are *celts*, which have been generally classified as flat, flanged, winged, and

* *Egypt under the Great Pyramid Builders*, by E. Wallis Budge (1902), page 136.

† *Ten Years' Digging in Egypt*, page 28.

socketed. The ordinary bronze celt is rarely more than seven inches in length, and some have been found which scarcely measure an inch and a half.

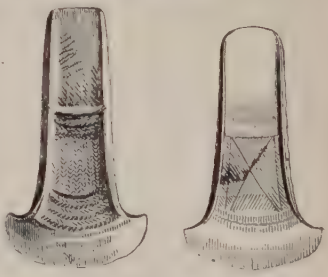
The Flat Celt.—The earliest type is flat and wedge-shaped, and, like the stone weapon, appears to have been fixed by the smaller end into a wooden handle. The accompanying figure (1) shows a long, narrow celt of gold-coloured bronze, ornamented on side and edges; fig. 2 is an ornamented celt with lunette-shaped edge and re-curved points.

Fig. 1. Flat Bronze Celt—scale one-half.

Fig. 2. Celt with lunette-shaped edge and re-curved points.

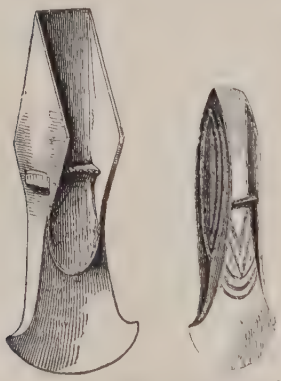
The Flanged or Winged Celt was a simple development of the latter, resulting from the necessity of affording a better hold to the weapon when fastened to a cleft handle. The flanges were produced either

by hammering the edges or by original casting. It will be noted, in figures 3 and 4, that a stop-ridge runs across the handle portion of the weapon, to prevent the celt being pressed into the haft when used with force. The position and shape of the ridge vary in the gradual development of the implement, until, merged in the flanges, we have a socket. The flanges vary much in size, and the term 'winged' is sometimes confined to celts with wide or more projecting flanges.



Figs. 3 and 4. Flat and Flanged Celts with Stop-ridge.

Fig. 5 has lozenge-shaped flanges or wings $1\frac{3}{4}$ inches wide; 'the stops are but slightly developed, and must have been bedded into the sides of the handle, which appears to have passed below them'; this will be seen by the groove projecting into the cutting half of the implement. The external knob was probably intended for holding the tying in its place. Fig. 6 is a broad-winged and stop-ridged celt with sides and faces ornamented. To the flanged type of celt the name 'Palstave,' a word of Scandinavian origin, is generally applied.



Figs. 5 and 6. Winged or Flanged Celts.

The implements were mounted by inserting the

handle between the flanges, and secured by a ligature of some kind tightly coiled round the butt. To secure the head from flying off the handle a loop was, in time, added to the inside edge of the celt by which it was firmly braced to the haft. The loop is almost invariably single; double-looped celts (see fig. 7) are very rare, and but a few specimens have been found in Ireland. The discovery of a mounted celt is also

Fig. 7. Double-looped Flanged Celt with Stop-ridge.

Fig. 8. Looped Celt with Original Handle.

very rare, as the wooden handles, to which they seem generally to have been attached, decayed in the lapse of time. A very interesting example is shown in fig. 8. This celt was found in the bed of the River Boyne near Edenderry. The handle is about 14 inches long, and the head possessed a loop which was worn through—probably, as Wilde thinks, by a metal brace which secured it.

The Socketed Celt.—In tracing the development of these celts, with specimens, it will be noted that the flanges grow bolder and more projecting, and in time curve inwards, and that the stop becomes more prominent. By merging it, as we have said, into the wings, and gradually removing the decreasing shank, the socket was formed. There was a marked advance here in casting, as provision had to be made for a core to form the socket. 'The lip of the socket,' says Wilde, 'is generally ornamented, and very frequently by one or more raised bands or fillets; sometimes by a very well-cast roped ornament, evidently made to represent a cord of twisted gut. A special description of cast ornament, consisting of longitudinal raised bars, generally ending in annular or button-like projections, sometimes occupies the side of this implement; . . . but in no case is the ornamentation produced either by the hammer, punch, or graver, as in the flat simple celt.'* There are several varieties of the socketed celt, as the illustrations show. Figures 9 and 10 are 4 inches and $4\frac{1}{4}$ inches in length respectively, and are characteristic of the plain class of Irish socketed celt, though differing materially from each other in particulars of shape, breadth, position of the loop, and ornament. Of the same variety are figures 11 and 12, drawn one-fourth the actual size. Fig. 13 represents a small and well-decorated celt, and is drawn one-half the size of the object. Fig. 14 represents a flat celt $4\frac{1}{2}$ inches long, with oval socket internally, and a small raised

* *Catalogue*, p. 384.

linear ornament. Fig. 15 shows a type of celt rare in Ireland. It is a good example of the axe-shaped implement; it is $3\frac{3}{4}$ inches long, and about the same across the cutting edge. Fig. 16 is a fine specimen

Fig. 9.

Fig. 10.

Fig. 11.

Fig. 12.

Fig. 13.

Fig. 14.

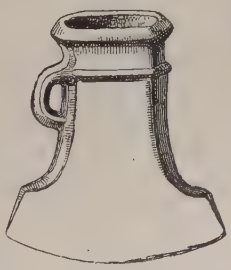


Fig. 15.

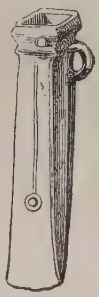


Fig. 16.

Varieties of Looped, Socketed Celts.

of the long narrow quadrangular celt: it is $5\frac{3}{8}$ inches in length and $1\frac{3}{8}$ inches in breadth. It is very rare in Ireland, and but a few specimens have been found in the country. Some of these socketed celts are so diminutive that they could not have served for chopping

of any kind. Fixed at the end of a wooden handle, they might, no doubt, well answer the purpose of chisels. The process of development here indicated must, as Sir John Evans points out, have taken a considerable period of time.*

Celt Moulds.—That Irish bronze weapons are of home manufacture, no one who has given the subject

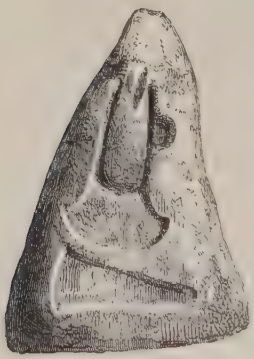


Fig. 1.

Celt Mould, Co. Leitrim.

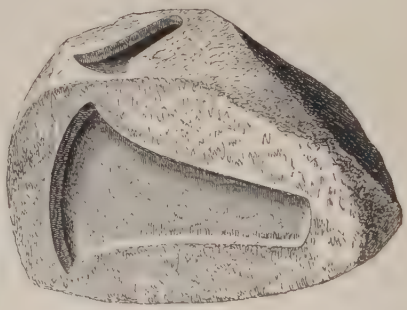


Fig. 2.

Celt Mould, Co. Down.

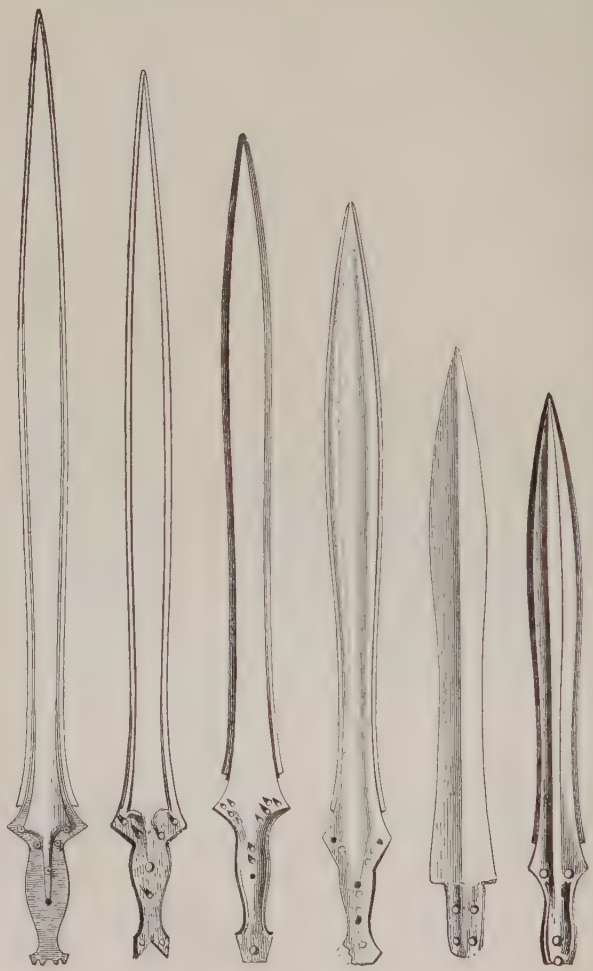
any consideration can doubt. Though bearing a general resemblance to remains of a similar class found in Britain, and on the Continent of Europe, the nationality of the majority of such relics found in the bogs, beds of rivers, and newly broken land of Ireland, is sufficiently indicated by certain minute peculiarities which, to a skilled observer, are almost invariably perceptible. Besides, the stone moulds in

* *Ancient Bronze Implements of Great Britain*, p. 472.

which many of the objects were cast have, from time to time, been turned up by the plough, or otherwise brought to light in various districts of the country.

The moulds are of two kinds: the first single, containing a cutting on the surface into which the metal was poured; this was used chiefly for the flat, axe-shaped type of celt. The second was a double mould consisting of two parts fitted together, and was chiefly used for casting the winged or flanged variety of celt. Fig. 1 represents a mould found in Lough Scur Crannoge, Co. Leitrim; and fig. 2 was discovered at Ballynahinch, Co. Down.

Bronze Swords.—Ireland is particularly rich in bronze swords; and a greater number have been found in it than in England or Scotland. The colour of the metal in the swords is usually lighter than that in the celt, as it seems to have suffered less from oxidation. Bronze swords are usually divided into (1) the leaf-shaped, (2) the rapier, and (3) the broad scythe-shaped varieties. On page 214 are given examples of the *Leaf-shaped Swords* found in Ireland. Of these, No. 1 is the longest blade preserved in the Royal Irish Academy's collection in the National Museum. It measures $29\frac{5}{8}$ inches in length; and as it has been drawn to about one-sixth scale, the proportion of its parts can be relatively ascertained. The covering or mounting of the handle has been lost; but six bronze rivets, by which it was secured to the tang, still remain. In the ends of each of these are small circular depressions which were



1. 2. 3. 4. 5. 6.

Varieties of Bronze Swords found in Ireland.

probably intended for the reception of some coloured enamel.

Blade No. 2, though somewhat smaller, is in style very like that just noticed. It is finely cast, and has, like the first, a bevel-edge. Its tang exhibits five plain bronze rivets, and three apertures for the reception of others which no longer remain; its length is 28½ inches.

No. 3 is 26 inches long, and retains ten handle-rivets, and provision for the reception of two more which have been lost. It has a narrow grooved feather-edge, but no midrib.

No. 4 is a very beautiful leaf-shaped sword richly moulded, and presenting a broad and finely graduated central rib, by which great strength is added to the blade, rendering it equally fit for thrusting or striking. The tang appears to have originally possessed ten rivets, of which only two remain; the length is 23½ inches.

No. 5. This blade is remarkable for the shortness of its tang, which is pierced for four rivets only. It is not bevelled at the edges, but shows a sharp central ridge of unusual thickness.

No. 6 is 18½ inches long; it 'has a thick flat midrib and grooved side bevels, or feather-edges, with hilt notches in the base of the blade. The handle-plate, which is slightly defective, has four rivet-holes, and has been welded by an over-lap.' (Wilde.)

The precise manner in which the swords were hafted remained until lately a matter of conjecture. It has been shown, however, by existing examples, that the

mounting probably generally consisted of bone; wood also may have been largely used. While in the northern and other parts of the Continent of Europe, bronze swords are commonly found with handles of the same metal, we cannot point to a single Irish specimen so furnished. Rapiers and dagger-knives of bronze, the blades and handles of which are of the same material, have frequently been found in Ireland. The handle-plates of swords are often found broken; and in some cases the break has been welded, which shows that this was the weakest part of the weapon. Bronze swords everywhere seem to have been used more for thrusting in close combat than for striking; and although the weapon ultimately developed into possessing a massive bronze handle, it was not until iron came into general use that the warrior was armed with a weapon strong enough at the hilt to deliver a downward stroke without snapping the blade.

Dagger hafted with Bronze.

The *Rapier* partakes very much of the character of

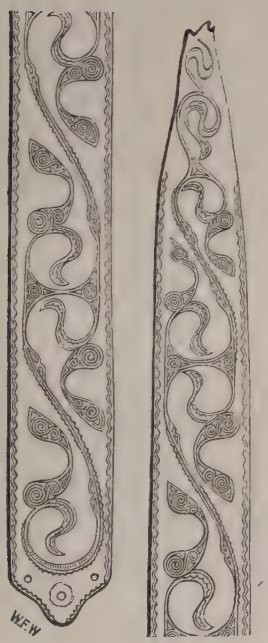
the leaf-shaped sword, having the broad triangular and the long narrow types, and are probably from the same school of manufacture. Except in the circumstance of being usually very long and narrow in the blade, they, as a rule, differ little from the swords and daggers with which they are sometimes found. Instead of a handle-plate, the butt of the blade of the rapier widens out for the reception of the haft, to which it was fastened by two or more rivets. In some cases the blade was only notched instead of pierced for the rivets; while in others it was both perforated and notched. Like the daggers, the handles were occasionally of bronze; but there is reason to believe that their mounting was more usually of bone. Moulds of stone used for the purpose of casting this class of weapon are rare; but a couple of specimens may be seen in the National Museum.

Broad Scythe-shaped Swords.—These are usually thick, heavy, round-pointed weapons, from about 8 to 16 inches in length and several inches broad at the butt, where they were attached to the haft by two or more heavy rivets, the heads of which are sometimes an inch across. About one-half of those in the National Museum are of the peculiar curved or scythe-shaped kind, and the greater proportion have thick central midribs. These, according to Wilde, seem to have been fastened at right angles to the hafts 'like modern halberds.' This view is generally accepted; but their great antiquity among metal weapons is probably not so great as Wilde seemed to think.

The swords discovered in Irish lake-dwellings are very varied; but they are all strikingly Celtic in character. A few have been formed of bronze, and differ in no respect from the greater number of those discovered in districts where, apparently, crannogs did not exist. The great majority of the crannog swords are, however, of iron, and are remarkable, as a rule, for their comparatively small size—their handles in particular. From this it has been inferred that the race or races by whom they were used must have been diminutive people. But the same remark may be applied to nearly all the swords of antiquity of which we know anything. The bronze swords discovered by Schliemann in the shaft-graves of Mycenæ are about 3 feet long—small weapons compared to the long, heavy, two-handed sword of the Middle Ages. In shape the crannog swords may be described, generally, as of two kinds: the one increasing in breadth from the handle to the end, which terminates in the form of a triangle; the other shorter, with a broad blade, quite in the Roman fashion. Both are double-edged, and are usually strengthened by a central ridge, while some rare examples are fluted. Their handles were for the most part composed of bone or horn, though sometimes wood was used; they were, as a rule, finished by a pommel, or knob of a semicircular or triangular form, secured and strengthened on the inner side by a plate of bronze, curving backwards. There is no hilt or guard, properly speaking, though the haft or handle usually somewhat overlaps the sides and edges of the blade, presenting a crescent-like figure,

the curve of which tends in a direction opposite to that of the pommel. Bronze mountings frequently occur.

Bronze Sword-sheaths.—Through the kindness of the Council of the Royal Society of Antiquaries of Ireland, illustrations are here reproduced, from their *Journal* (1883, 1889), of several bronze sheaths which were found at Lisnacroghera, near Broughshane, Co. Antrim, in connection with at least three swords of the crannog class. Very few remains of the kind have been discovered in Ireland; and no specimen had been found when Wilde compiled his *Catalogue*. He, however, notices some small, undecorated objects, composed of bronze, little larger than a lady's scissors-case, which, in all probability, were the sheaths of small knives or skeans. At Lisnacroghera crannog, four fine and nearly perfect examples of bronze sword-sheaths, which had contained iron blades, have, in recent years, been brought to light; some portions of at least four others also occurred in the same place. In Kemble's *Horæ Ferales* several short swords or



No. 1.

Upper and Lower Portions of Sword-sheath of Bronze, from Lisnacroghera. Now in the Grainger Collection.

daggers are illustrated identical in type with that so clearly shown in Ireland, for the first time, by the

No. 2.

Upper and Lower Portions of Sword-sheath of Bronze from Lisnacroghera. Now in the British Museum.

No. 3.

Upper and Lower Portions of Sword-sheath of Bronze from Lisnacroghera. Now in the Grainger Collection.

Lisnacroghera 'finds.' The illustrations in that work*

* *Horæ Ferales*, Kemble, p. 190, *et seq.*

show both sides of a sword and sheath, and their likeness to the Ulster examples is very striking: the haft of the sword is of a similar character, and the ends of the bronze sheaths identical. This relic was discovered in the river Witham, in England. The bed of the Thames has, from time to time, presented examples of equal interest.

The Lisnacroghera remains are, in some respects, the most remarkable that have been discovered in recent years in Ireland. The special importance of the 'finds' lies in the interesting series of iron swords with bronze mountings and ornamental bronze sheaths, already referred to, and iron spears, the wooden handles of which had bronze knobs at the end. One of the sheaths is perfect but unornamented; of the others which are here illustrated only one side of each remains. These are very finely ornamented by sharp and clear incised lines. The pattern was evidently intended for the reception of enamel, which was probably black, and of which some faint traces seemed to remain. If this was so, the contrast, when finished, between the black enamel and the burnished golden-hued bronze must have been very striking and effective.

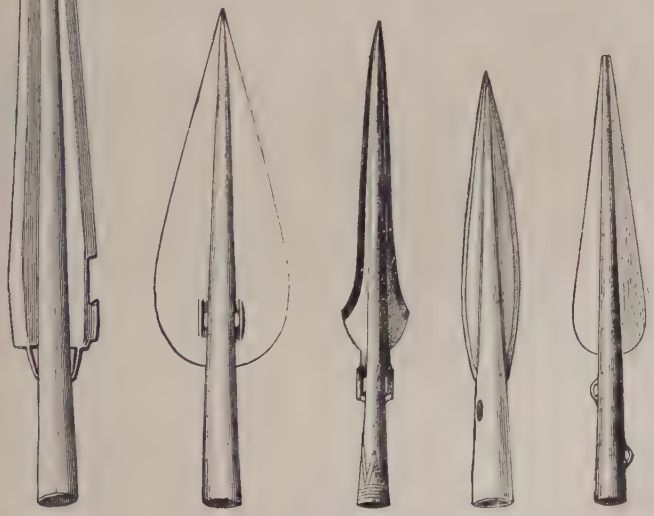
The advanced stage of art reached in the ornamentation of these objects has been styled 'Late Celtic' by Sir A. W. Franks, in editing Kemble's *Horæ Ferales.* The objects on which the early craftsmen lavished this decoration, and in which the metal-workers of the British Islands were in no way behind those of Central Europe, consist of shields, swords, sheaths, horse-trappings, fibulæ, armlets, &c. These were of both

bronze and iron, the latter prevailing in the La Tène period, and they were often embellished with enamel. Sir A. W. Franks, on a very careful examination of many of these objects, attributes them to Celtic sources, and not to Roman, Saxon, or Danish. He is inclined to fix the date of their production at about 100 B.C.; and as a discussion of the evidence involved in these questions is outside our limits, it is sufficient here to state that the early Iron Age was fully developed among the Celtic races of Central Europe long before the new metal was generally adopted by the inhabitants of the British Islands and the North of Europe. It is now generally admitted that the art and industry represented in the objects under consideration had their origin in the influences emanating from the civilization of Hallstatt and La Tène. Commencing about 800 B.C., these influences extended; and the results may be traced from the British Isles, throughout Europe, to the plains beyond the Alpine barriers, until we reach the shores of the Mediterranean and Adriatic Seas.

Bronze Spear- and Javelin-heads.—These have been found in large quantities in Ireland; and the number in the National Museum is about 320. The classification given by Wilde is that usually adopted: (1) the leaf-shaped, either long and narrow, or broad, with holes in the sockets for the purpose of riveting into the shaft. (2) The looped, with eyes on the sockets below the blade and on the same plane with it. (3) Spear-heads with the loops formed at the junction of the

blade with the socket. (4) Those with the loops in the body of the blade, on either side of the midrib or main line of the weapon. These spaces are sometimes crescent-shaped, and are considered to lighten the weight of the spear. This division seems more or less arbitrary, depending on accentuated points of difference. A more satisfactory classification has been attempted by Mr. George Coffey, showing their probable type development.*

The looped spear-head is a distinct type; and, according to Sir John Evans, it is hardly known outside the British Isles. It



1. 2. 3. 4. 5.

Varieties of Spear-heads of Bronze.

is more numerous in Ireland than in England or

* See *Proceedings* Roy. Irish Academy, vol. iii., 3rd series, p. 486.

Scotland. Of the spear-heads in the Academy Collection here figured, No. 1 is, with a single exception, the largest known to have been discovered in Ireland. It is 27 inches in length, and composed of fine gold-coloured metal, run very light and thin; it is furnished near the socket with two loops, and has a broad concave bevel round the edge. This weapon was found near Maghera, Co. Londonderry.

No. 2, which measures 13½ inches in length, is composed, like No. 1, of bright gold-coloured bronze. It is remarkable for the breadth of its blade, and for the position of its loops as shown in the illustration.

No. 3 is 15 inches long, and presents a very unusual form, being concave on its curved sides. Here, as usual, we find loops upon the socket; they, however, present a somewhat rare feature, being connected with the base of the blade by narrow lateral fillets. It will be seen that the end of the socket is richly engraved with lines and chevrons, like those which are found in great variety upon many objects of the Bronze Age.

No. 4 is an excellent and typical example of the leaf-shaped spear-head so often found in Ireland. It is 13½ inches in length, and has no side loops, but the socket is pierced for the reception of a rivet, which was probably of wood, by which the head was secured to the shaft or handle. It may be observed that the sockets of this class of spear-head are almost invariably of abnormal diameter, and that the metal of the head is usually of a duller or more copper-like colour than that of the ordinary bronze of the period.

No. 5 is a curious specimen composed of pure bronze,

and unique in the collection. It is $13\frac{7}{8}$ inches in length; and its peculiarity is in the position of the side loops—one appearing near the end of the socket, while the other is considerably above it, and very close to the side of the blade. The loops, too, are of unusual character, being almost semicircular in form, while features of their kind are, as a general rule, of a quadrangular shape; the socket is quite plain.

Ornamented Spears.—The spear-head indicated by fig. 1 in the accompanying illustration measures $7\frac{1}{2}$ inches in length. It is a beautiful example in every respect, and when first lifted from

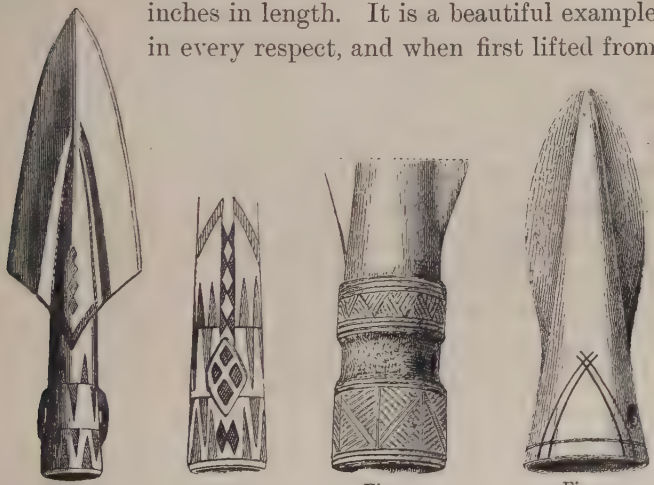


Fig. 1. Fig. 2. Fig 3. Fig. 4.

Ornaments on Spear-heads.

the bed of the Shannon, was as bright as gold. It has no patina, and is now of a dull yellow colour. Fig. 2 is drawn upon a larger scale than that adopted in the general view of the spear-head, in order to illustrate the design with greater clearness. The work is very

similar to some that appears on gold lunettes and other relics of the Bronze Age to be seen in the Academy collection. Fig. 3 illustrates the socket of a spear-head boldly and richly decorated in the same style. Fig. 4 is a full-sized engraving of the smallest bronze spear, or javelin-head, preserved in the collection. Like Fig. 4 of the group of spear-heads already given, it is composed of dark-coloured bronze, and exhibits, for the size of the object, a most disproportionate diameter in the socket.

Crannog Spears.—Very few spear-heads of bronze have been found in Irish lake-dwellings, while arms of that class, javelins and arrow-heads, composed of iron, are very numerous. As may be judged from examples found at Lisnacroghera, the spear-shaft was usually about 8 feet in length; but one complete specimen, now in the Grainger collection, Belfast, has, so far as we are aware, been preserved: it is of ash. Objects of antique bronze, similar in form to that of a modern door-handle, may be seen in most of the important collections of Irish antiquities. Up to a recent period they were a puzzle to archæologists. That they were mountings for the butts of spear-shafts is now certain. Indeed, at Lisnacroghera a couple were found still retaining within them portions of the handle-ends.

Butt mounting of Crannog Spear - shaft. From the Grainger Collection.

The mode in which they had been attached to the shaft is thus described by Canon Greenwell, who had secured at least five specimens from that crannog: 'The end of the shaft is split, and into the split is inserted a wedge of wood, so that, when driven home, the wedge expanded the end of the shaft, and kept it firm in the butt.' Iron spear-heads are often very elegant in form; and in some instances their sockets are ornamented with chevron and other tasteful patterns. They were secured to the handle by bronze ferules, or by rivets of the same metal, or of iron, which sometimes projected beyond the sides of the shaft, as we see depicted in the drawings in Anglo-Saxon manuscripts. The ferules occasionally exhibit depressions, or scorings, which would seem to have been intended for the reception of enamel. In no instance have the side loops, so common in bronze examples, been found on spear-heads of iron.

Arrow-heads of copper or bronze are rare; the metals were too valuable to be used in any general sense in such weapons. Javelin-heads, generally differing from the spears in size only, have been found in our principal crannogs; but no trace of a bow, so far as we are aware, has been recognized amongst the numerous relics formed of wood which usually accompany the metallic remains. Many of the smaller heads in the National Museum were probably used as bolts for cross-bow purposes.

Shields.—There can be little doubt that the lake-dwellers in Ireland—such of them at least as were

able to bear arms—were in the possession of shields, some of which were formed of bronze. Not far from Lough Gur—a sheet of water with crannogs—in the County Limerick, a very fine shield composed of bronze was accidentally brought to light. This occurred during drainage operations some fifty years ago, when a

Bronze Shield from Lough Gur.

large number of bronze arms and implements were discovered. This is known as the 'Lenihan' shield; it is circular in plan, the diameter being 28 inches, and slightly convex; the centre rises about $1\frac{1}{4}$ inches above the rim; and the *umbo*, which is 6 inches wide at the base, rises in conical form $1\frac{3}{4}$ inches above the shield. 'The hollow of the *umbo* internally is crossed by a stout handle, firmly riveted to the

shield, of sheet bronze bent into a round. The metal of the shield is formed at the edge into a round hollow rim by being most skilfully turned inwards into a roll $\frac{1}{4}$ inch wide; between it and the *umbo* are six beaten-up circular ribs, and six rows of small studs. In the circle next the rim there are seventy-three studs, and in that next the *umbo* twenty-two. The bronze, which is of a fine golden colour, is about the thickness of a worn shilling next the rim, and of a sixpence near the centre.' The metal is much too thin to have been of any service by itself, so that it probably was the outer and ornamental covering of a 'tough bull-hide.' Plates of this kind, examples of which have been found in Great Britain, seem to belong to the close of the Bronze Age. Sculptured upon one of the crosses at Kells, Co. Meath, are armoured figures with round shields, showing that these defences were used in the early Christian period at least.

Many pieces of hammered sheet-iron, which appear to have belonged to shields, have from time to time been found in crannogs. It is probable, however, that shields were, as a general rule, formed of wicker-work, or wood, covered with a piece of animal hide. It was not until man, as Sir John Evans points out, had made considerable advance in the use of bronze that he could have prepared plates, like that of the Lough Gur type, wherewith to cover a shield.

Bridle-bits.—Amongst the rarer remains of a period when bronze was very largely used in the production of arms, implements, and objects of various descriptions,

bridle-bits, remarkable for their beauty of design and excellence of workmanship, are, in some respects, of the highest interest. Some examples were evidently intended for the reception of enamel as portion of their decoration; and, in at least one instance, the cheek-pieces, or rings to which reins had been attached, are richly embossed with coloured material, in every way resembling the enamel found on some of the finest remains of the Late Celtic period.

On several ancient crosses will be seen sculptures of chariots, showing that these were in use among the chiefs or other high personages at an early date. The vehicles are represented as furnished with large-sized, spoked wheels, and drawn by pairs of high-stepping, evidently mettlesome, horses. The body of the machine is of elegant design; and we have records that it was at times artistically embellished with *findruine*, a white metal more precious amongst the ancient Irish than silver. At Tara was a space known as the 'Slope of the Chariots,' where it is supposed, as its name implies, chariot races were held.

The three bronze bridle-bits here figured, and showing different varieties, are in the National Museum, where a large number, complete and fragmentary, may be seen. Fig. 2 was found in the valley between the hills of Screen and Tara. Fig. 3, which was found near Navan, County Meath, accompanied with gilt bronze trappings, and the skull and other remains of a horse, is most likely of a later period than the others. Almost immediately with it were about a dozen human skele-

tons, and traces of fire. In general form and in its details, this bit closely resembles some specimens formed of iron which were dug out from the crannogs of Lagore and Ardakillin.* The bridle-bits here illustrated are practically identical with examples of the Hallstatt and La Tène periods, found both in bronze and iron.

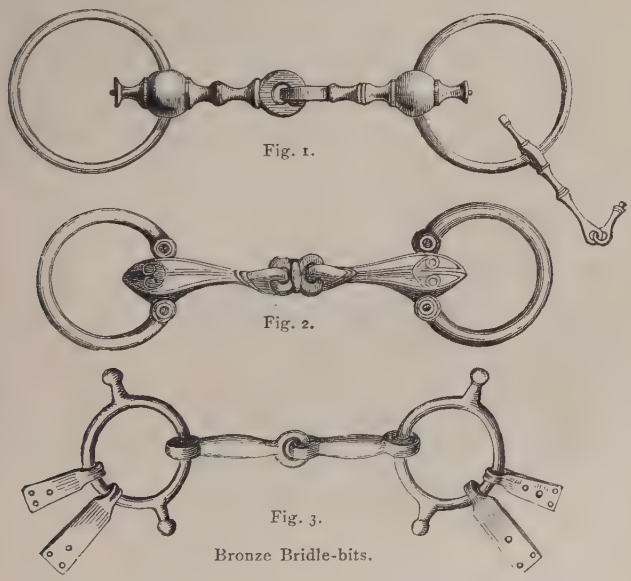


Fig. 1.

Fig. 2.

Fig. 3.

Bronze Bridle-bits.

In connection with bronze-bits of the earlier kind, spur-shaped objects, usually, but vaguely, described as 'headstalls,' have frequently been discovered. There is some evidence that they were attached to the cheek-pieces, or rings, and hung with their knobs

* *Lake-Dwellings of Ireland*, by Col. Wood-Martin, pp. 136–7.

downward. They may, however, have stood above the head and had plumes or some such things fixed in them. The central figure in Fig. 4 is given to show the style of ornamentation that appears upon the external side of the terminal loops. The lines, which are deeply cut, were probably enamelled. In Fig. 5 the cross-like figures are very curious, but they

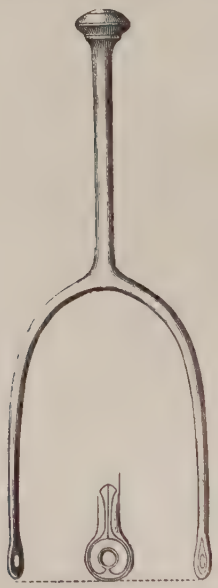


Fig. 4.

Fig. 5.

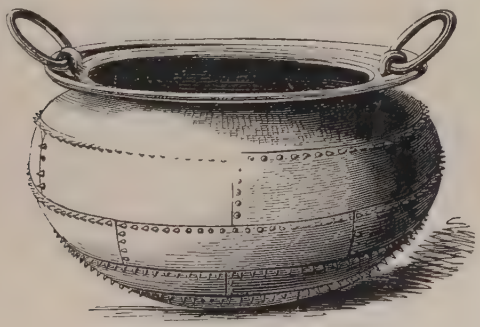
Trappings of Bronze, called 'Head-stalls,' found with Bronze Bridle-bits.

need not be supposed to have any connection with Christian symbolism.

Yokes, formed of wood, by which horses, oxen, or other animals of draught were coupled, have often been found in our peat bogs. Some examples exhibit

much taste in their style of decoration. There is a valuable collection of these and other wooden objects in the National Museum.

Caldrons.—Caldrons—in Irish *coire*—formed of thin plates of beaten bronze curiously riveted together, were important articles of domestic use in Ireland at an early date, being mentioned among the special property of kings; and many fine specimens have been found in Ireland from time to time. Tradition tells that among the great treasures brought to this country by Tuatha De Danaan was the Coire an Daghdha or 'Magic Caldron.' Caldrons are usually



Bronze Caldron, Academy Collection.

of very graceful form, and were furnished with two rings, or handles, placed opposite to each other at or near the rim of the vessel, and held by straps, which were fastened by stays either to the inside or outside of the vessel. Most of the known specimens must have been long in use, as they are generally more or less patched and mended in places

where the metal had given way. The added pieces are of the same material as the body of the utensil, and are kept in position by rivets, never by soldering. One vessel of this class was found nearly full of celts, palstaves, daggers, crotals,* and other objects of bronze. This discovery was made at Dowris, near Birr, in the King's County, in 1830. The bronze of which the objects were made is of a bright golden hue, which it is supposed was due to a mixture of lead in its composition; this type of metal is known in consequence as 'Dowris bronze.' Bronze caldrons similar to the Irish, both of the round and elongated forms, have been found among the Hallstatt remains.

Caldrons are constantly mentioned in ancient Irish manuscripts. In the *Book of Rights* the following passages occur, showing that the caldron formed part of the tribute paid to a king:—

> 'A caldron is giving to the King of Caiseal
> By the King of Teamhair, the mighty chief,
> To be presented in due form,
> And to be brought to Teamhair Luachra. . . .
> Entitled is the King of Saithne to this,
> To a steed and to two score of cows,
> For his rising out is not less,
> Neither is his caldron nor his vat.'†

Caldrons formed of iron, similar in shape and style of workmanship to those of bronze, have recently been found in Ireland. The Grainger collection, Belfast, contains two important examples from the Lisnacroghera

* These objects are a kind of pear-shaped bell, containing a piece of metal within and admitting 'a dull feeble sound.' See Wilde's *Catalogue*, p. 613. † *Journal* Roy. Soc. of Antiq. Ir., 1874, p. 22.

crannog. A third, from Lough Erne, has been presented to the Royal Irish Academy collection by Mr. Seaton Milligan.

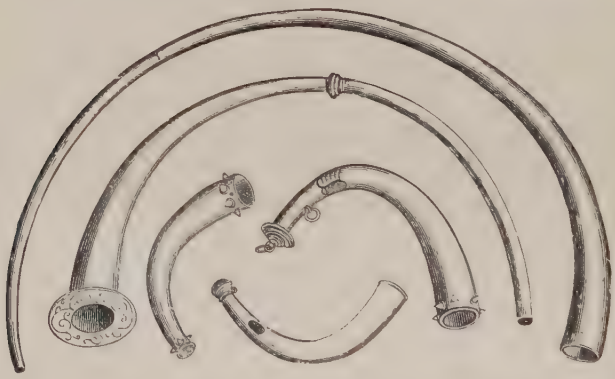
Among other bronze objects of domestic use discovered are small dishes, an interesting example of which is here illustrated. It is $7\frac{3}{4}$ inches wide, and is hammered out of a single piece of metal, and ornamented on the inside with a series of curved-line patterns.

Bronze Dish from Cloonfinlough Crannog, Co. Roscommon.

Bronze Trumpets.—A large number of war-trumpets have been found in Ireland during the past two centuries; and an interesting series of these in the Academy collection is to be seen in the National Museum. These instruments are usually classified into (1) those blown in the ordinary way from the end; and (2) those having the end closed, and sounded from an opening some distance from it in the body of the instrument. Among the examples found, some are cast, and others riveted; many are ornamented, and some have highly decorated discs of the Late Celtic period round the mouth. When not in use they were probably slung from the shoulder, some of the instruments exhibiting loops to which straps could be attached.

An interesting group of trumpets from the Academy collection is here represented. The trumpet to the left of the lower central figure is of cast bronze and is

24 inches in length along the convex side. 'It requires,' says Wilde, 'a great exertion to produce even a dull sound with this instrument.' The central figure, and that immediately above it to the right, are also cast, and have holes on the inner sides. It has been thought that this type of instrument was used more for speaking than blowing; and Latin writers notice the clamour and noise of trumpets made by the Celts on the battle-field. The fourth trumpet is of



Bronze Trumpets, Academy Collection, National Museum.

two portions, and the combined length is about 6 feet. It is not cast, but made of thin sheet bronze; the edges are not soldered, but are held together by thin stripes of metal running along the seam internally and externally, and riveted to each side by alternate studs of bronze. The disc at the end is about 3 inches wide, and has a fine design of Late Celtic pattern punched on the metal. The fifth figure in the illustration represents an exceptionally fine trumpet, and

one of the most remarkable yet discovered in Europe for its size. It is 8 feet 5 inches in length, and is in two portions, formed, like the last, of sheet bronze, the edges being held together by an internal strip of metal riveted to the side. This, as Wilde well says, is the most perfect thing of its kind yet discovered; and if the instrument was originally of one piece, exceptional skill and ingenuity were shown in the riveting.*

Bronze Ornaments.—Pins of wood or bone seem to have been the material used in the earliest articles for fastening the dress. Bone pins have been found in considerable numbers in early burial sites, and in crannog remains; many are ornamented and they were very probably used long after the introduction of bronze. On the discovery of this metal the beauty of the colour naturally led to its immediate adoption for objects of personal use and decoration. The number of these objects that have been found in Ireland is very great, and they consist of pins, fibulæ, brooches, rings, bracelets, &c. The bronze pin, which was derived from the ring-brooch, shows a regular development; first in the solid head, which is very varied; later the head was pierced for a ring, or a ring was riveted to it. The ring in time became the special object of development, similar to the process of the parent ring-brooch which ended in the production of those splendid examples of metal work—the Celtic brooches.

* For the process of riveting, see Wilde's *Catalogue*, p. 632; and the *Journal* Roy. Soc. of Antiq. Ir., 1876–8, p. 277.

The accompanying figures illustrate varieties of ring-pins not uncommon in Irish collections. Fig. 1 has a ring of the disc type with a plaited design, which

Fig. 1. Fig. 2.
Disc and Penannular Types of Ring Pins.

plays freely in the loop of the pin-head. Fig 2 has the penannular type of ring with coin-shaped ends. Spring brooches or fibulæ of the kind shown in fig. 3 are rarely found in Ireland. This is a beautiful example of the 'serpent' type, and 'is curiously frosted with a raised irregular pattern all over the surface; but whether produced in casting, or caused by sudden cooling of the metal, is uncertain.' Fig. 4 represents

a beautiful example of the hinge-brooch and one of the finest ever discovered. It was found in Ardakillin Crannog, near Strokestown. The ends show Late Celtic design; and the ornament was produced by

Fig. 3. Bronze Fibula.

punching from the back. The curved body of the brooch has a raised plaited design of the usual type; and this piece appears to have been cast.

Penannular rings, more common in gold than in bronze, have frequently been found, the larger size

Fig. 4. Bronze Hinge-brooch, drawn full size.

having been used as bracelets or armlets. Two of the latter are figured on next page. One is a massive ornament consisting of a double rope-like band joined to a small ring. The second consists of 'a double circlet of thin bronze, with free ends, one of which is perforated

for looping on a stud placed behind the central enlargement; the other extremity, as well as the central space, is decorated with an embossed bird-head pattern.' (Wilde.)

Figs. 5 and 6. Bronze Armlets, one-half real size.

Gold Ornaments.—By far the largest number of important objects for personal decoration of the Bronze Age found in Ireland are of gold. The quantity that has been discovered is very large; and Ireland has perhaps the richest collection in Europe of prehistoric gold ornaments. There are many references to gold in the Irish 'Annals'; and, judging from them, its antiquity in Ireland is great. We are told, under date 3872 A.M.: 'It was Muineamhon that first caused chains of gold (to be worn) on the necks of kings and chieftains in Ireland.' In the *Book of Rights*, numerous allusions are made to rings, chains, brooches,

and other objects of gold and silver as tribute paid by petty kings and chiefs to the reigning monarch.

The *Annals of the Four Masters*, at A.M. 3656, state: 'It was by Tighearnmas also that gold was first melted in Ireland, in Foithre-Airthir-Liffe. (It was) Uchadan, an artificer of the Feara-Cualann, smelted it. It was by him that goblets and brooches were first covered with gold and silver in Ireland.' A similar entry occurs in the *Annals of Clonmacnoise*.* The district referred to includes parts of the counties of Wicklow and Dublin. It is interesting to note that even to this day gold is found in several of the mountain streams of Wicklow. In the National Museum may be seen the model of a Wicklow nugget found in 1796 which weighed 22 ounces; in a few weeks subsequently, 800 ounces were sold for £3000. One has been found of nine and another of eight ounces. It has been computed that in the early part of the last century the jewellers of Dublin paid annually an average sum of £2000 for nuggets from the Wicklow streams, secretly sold to them by the finders. Much has been written, and various theories advanced, to show that the sources from which the ancient Irish derived gold were foreign, and not native. It has been attributed to the Levant, Gaul, Spain, and Scandinavia; while one writer labours to prove that Roman coinage was melted down to supply the material for the manufacture of ornaments. The instances here given—of Wicklow furnishing considerable quantities of

* See Roy. Soc. Antiq. edition, p. 32.

the precious metal in modern times—supplies strong presumptive evidence that the main source from which the ore was derived was Ireland itself.

The recorded instances of the discovery of gold ornaments and other objects in Ireland are very numerous, and date back for several centuries.* The collection of the Royal Irish Academy is one of exceptional interest and value, and numbers over 350 specimens. These have been classified by Wilde as follows: 'Diadems, tiaras, lunulæ, hair-plates, and ear-rings; those used for the neck—as, for example, gorgets, small torques, flattened beads, globular balls, and necklaces; for the breast—as circular plates, fibulæ, and brooches; for the limbs—as armillæ, bracelets, and finger-rings; and for the chest and waist, in the form of large torques: besides several minor trinkets and miscellaneous articles, such as bullæ, small circular boxes, penannular-shaped articles—supposed to represent money—bracteate medals, and some other objects of undetermined use.'†

Notwithstanding the great number of gold objects found in Ireland, and preserved in public museums or private collections, the majority of those discovered found their way to the melting-pot; some jewellers, according to Wilde, estimated that they had purchased as much as £10,000 worth. This is a matter much to be regretted, for the loss to archæology is great; and it cannot be too widely known that the Council of

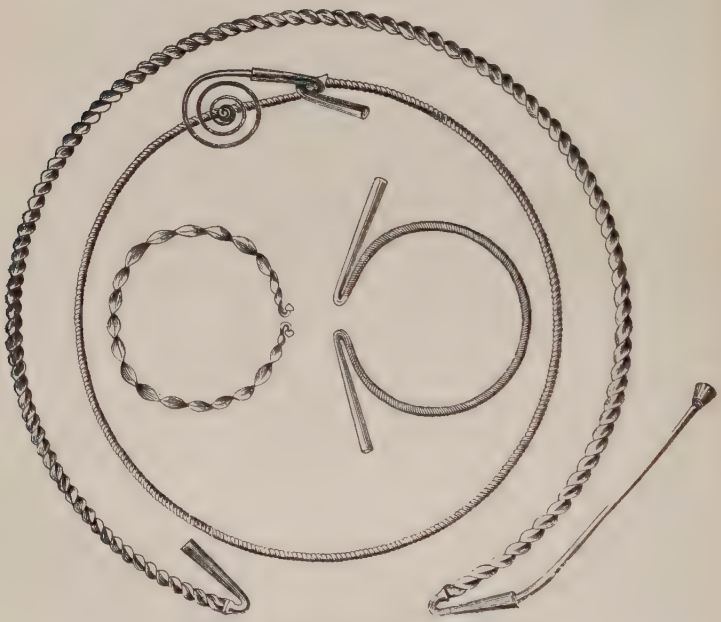
* For a summary of these, see an Article by R. R. Brash, *Journal* Roy. Soc. Antiq. of Ir., 1870–1, p. 509.

† *Catalogue of the Antiquities of Gold*, p. 2.

the Academy and the Trustees of the National Museum are prepared to pay, not only the full bullion value of any object found, but its estimated antiquarian value, which depends on its condition, rarity, ornamentation, and the very special circumstances under which it has been discovered. As examples of the losses in question, we may mention that in 1860 a letter appeared in the *Athenæum* from Mr. Clibborn, the then Curator of the Museum of the Royal Irish Academy, stating 'that a considerable gold find had been made near Athlone to the value of £27,000, which had been entirely lost to the antiquarian world.' Again, in 1854, during the construction of the Limerick and Ennis Railway, certain labourers found under a rude cairn an immense treasure of the precious metal. So great was this find that four days after the discovery four men departed to America with about £6000 each. Large numbers of the objects were immediately melted down in Limerick and neighbouring towns; a few only seem to have been saved from the crucible.

Torques.—The term 'Torque' is applied to the various kinds of collars generally worn round the neck, by the Celtic tribes of the Continent and the British Isles. Those of the largest kind were worn round the waist, or across the breast, and the smallest on the arm or wrist. The torque, familiar to all readers of Roman history, and worn round the neck, was a twisted rope-like ornament with bulbous ends at the front. Frequent mention is made of the torque in Irish records, and their use ranged over a long

period of time. Considerable numbers, and of great variety, have been discovered in Ireland; and some are among the largest yet found in Europe. 'The simplest form,' say Wilde, 'is that of a square bar of gold, twisted so as to present a funicular, or rope-



Gold Torques, Royal Irish Academy Collection.

like figure. In the more complete forms, two or more flat stripes of metal, joined at their inner edges, are twisted spirally.'

The subject of the above illustration is a group of four torques of types usually found. The two outer examples were dug out of a bank of earth on the

Hill of Tara. This was in 1810—a time when little was known about Irish antiquities; and the torques were hawked about the streets of Navan for sale as old brass, but nobody would purchase them. They were found in the immediate vicinity of the monuments identified by Petrie as Mael Bloc and Bluicni, two magical stones of the pillar class. Wilde states that these ornaments were purchased by the Duke of Sussex, from whom they passed to the firm of West; and in 1839 they were purchased by subscription, and presented to the Royal Irish Academy. The outer figure represents as far as we are aware, the largest ever recorded to have been found anywhere. It is 5 feet 7 inches long, weighs 27 ounces and 7 pennyweights, and is formed of four flat bars, united at their edges when straight, and then twisted.

The next in size measures 5 feet 6 inches in length, and is twisted closer; its weight is 12 ounces, 7 pennyweights, and 13 grains. These large torques were seemingly intended to be worn over the shoulder and across the breast; the smaller examples were evidently for the neck.

Lunulæ or Lunettes.—A number of these interesting objects, which there is good reason to believe belonged to royal persons, may be seen in the same collection. In Irish they are called 'Min' or 'Mind,' and consist of 'a thin crescentic or moon-shaped plate, with the extremities formed into small, flat, circular discs at right angles with the plane of the article.' They are remarkable for the elaborate ornamentation worked

upon them, the pattern being filled with closely engraved lines single and cross-hatched; the design is of the type found on bronze weapons and sepulchral urns. These ornaments are considered to have been worn upright on the head, and held in position by the terminal plates set behind the ears. They are similar

Gold Lunette, or Min, Royal Irish Academy Collection.

in form to the 'nimbi' in pictures of saints; and in those on panels, the 'glories' were often represented by silver-gilt plates of metal.

The above figure represents a beautiful and finely decorated example of lunette; it is 7 inches high, and

about the same broad, and weighs 18 dwts. 2 grs. The terminal plates are of oblong shape and not circular.

The Diadem or Tiara is another and not uncommon type of the 'Min.' They are made of thin plates of gold; and the illustration here shows a semi-oval-shaped

Gold Tiara or Diadem, Royal Irish Academy Collection.

object, wide at the top and narrowing at the ends, and elaborately decorated. The ends are fixed in double plate-discs; and when worn, these terminals are supposed to have been in front of, and partially covering, the ears. This object is a magnificent specimen, and

perhaps the finest of the kind yet discovered. It weighs 16 oz. 10 dwts. and 13 grs., and measures in height, internally, 11 inches by the same in breadth. It consists of three rolls or ridges, the hollows being occupied with fine rope-shaped bands. It is richly ornamented with rows of conical studs; and the discs are also decorated with rows of small studs round a central umbo.

Many penannular rings have been found in Ireland; and from these were developed a remarkable series of ornaments usually called *Fibulæ*, and which are typical

Gold Fibula, Trinity College, Dublin.

of Irish collections. A slight enlargement at the ends of the ring gave rise to a cup-like expansion, which in time developed into such a size that the connecting ring became quite a minor feature in the ornament. The terminals are either flat, or cup-shaped; the former are usually plain, and the latter highly ornamented.

The fibula here represented is a massive ornament weighing 33 oz., and is the heaviest of its kind yet discovered. It is $8\frac{3}{8}$ inches long, and stands $3\frac{1}{2}$ inches high. The external surface of the cups is ornamented

with a concentric circle pattern; while the inside edges and the junction of the handle and cups are decorated with a triangular design similar to that on the lunette.

The great interest aroused in the recent discovery of gold ornaments, the possession of which has formed the subject of debate in and out of Parliament, renders a brief reference to them necessary. They were discovered at Broighter, near Limavady Junction, on the Derry and Coleraine Railway line, in a ploughed field not far from the shores of Lough Foyle. This great 'find' consists of:—(1) A boat of beaten gold, $7\frac{1}{4}$ inches long by 3 inches wide, weighing 3 oz. 5 dwts.; it has eight seats, and 15 oars, with other fittings. (2) A bowl also of beaten gold, $3\frac{1}{2}$ inches in diameter, with 4 small rings for suspension, and weighing 1 oz. 5 dwts. 12 grs. (3) Two chains of delicate workmanship, one $14\frac{1}{4}$ inches long, weighing 2 oz. 7 dwts.; and another $16\frac{1}{2}$ inches, weighing 6 dwts. 12 grs. (4) A small torque, 5 inches diameter, weighing 3 oz. 7 dwts. 9 grs.; and a portion of another weighing $1\frac{1}{2}$ oz. (5) A collar of very remarkable workmanship, and one of the first of the kind ever discovered. A small portion is missing; but when closed, it forms a circle $7\frac{1}{2}$ inches diameter. It consists of a highly decorated hollow tube, $1\frac{1}{8}$ inches diameter, formed by two plates soldered together. It is fastened at the ends by a T-shaped projection and slot. The ornament is in *repoussé* work, in the trumpet pattern of the Late Celtic period, the spaces between being filled with finely engraved lines like the back of a modern watch.

Mr. A. J. Evans had little doubt that the hoard

'was a thank-offering dedicated by some ancient Irish sea-king, who had escaped from the perils of the waves, to a marine divinity.' Mr. Robert Cochrane, however, in a scholarly paper, suggests, with more reason for acceptance, that the offering might have been made to one of the neighbouring churches by Aedan, King of the Albanian Scots, who accompanied St. Columba to the Convention of Drum Ceat.*

* See *Archæologia*, vol. 55, p. 391; *Journal* Roy. Soc. Antiq., 1902, p. 211.

CHAPTER IX.

LAKE-DWELLINGS.

ORIGIN OF LAKE-DWELLINGS — FIRST DISCOVERIES IN IRELAND — DESCRIPTIONS OF CRANNOGS—LAGORE—DRUMKELLIN HUT—LOUGH GUR—CRANNOG 'FINDS'—BALLINAMORE AND BALLYCONNELL—STROKESTOWN — SWISS LAKE-DWELLINGS — SCOTCH CRANNOGS — DISCOVERIES IN ENGLAND — MOYLARG — LAKE STONE-DWELLINGS ARCHÆOLOGICAL PERIOD OF CRANNOGS — CRANNOG POTTERY — CANOES.

THE systematic exploration of lacustrine habitations in the latter half of the nineteenth century has achieved remarkable success; and the results are among the most satisfactory in the whole field of archæological investigation. Water—usually a destructive element—has, in the case of lake-dwellings, so far preserved these remains of early races that we are enabled to learn much of their habits and modes of life, of which we could otherwise glean but little knowledge. Man has at all times familiarised himself with water; and he readily adapts himself to the conditions of dwelling near or upon it, whenever he adopts it as a surrounding for his home. Primitive man saw easily that islands afforded a safe retreat in the great struggle for existence between him and his natural foes—man and beast. In selecting water, where islands did not exist he created

them for himself, and brought considerable mechanical skill and ingenuity, and immense labour, to bear upon their construction. To hollow out a log-canoe, and to make an artificial island with trunks of trees, branches, stones, and earth, were but stages, though greatly advanced ones, in the development of human intelligence from its low condition in the cave-dwellers and men of the river-drift. It is evident, however, that these artificial islands had been long used in Europe before they had been adopted in Ireland as dwelling-places.

Many a desolate moorland district, and many a shallow waste of water, throughout Ireland, now showing no other signs of animal life than the wild fowl which frequent them, were at one time the sites of human habitation, industry, and even art of no mean character. A slight elevation on the surface of a bog, some bleached sprays of birch, ash, or sallow, or the appearance of a few grey or white reed-surrounded stones, rising a few inches above the surface of a lough, will often, to the practised eye, indicate the position of a *Crannog*, by which name lake-dwellings in Ireland are usually designated. It is, however, to turf-cutting operations, or to drainage, that the discovery of the great majority of these interesting sites must be attributed. The term 'Crannog' is derived from *crann*, a tree; but whether it was given originally to the wood used in constructing the island, or to the huts, cannot now be determined.

'To understand,' says Sir William Wilde, 'or appreciate the nature of these dwellings, we must bring

back our minds to the period when the country around the localities where they occur was covered with wood, chiefly oak and alder, and when the state of society had passed from that of the simple shepherd or pastoral condition, to one of rapine, plunder, and invasion. Certain communities, families, or chieftains required greater security for themselves, their

Lake-dwellings in Lough Eyes, Co. Fermanagh.

cattle, or their valuables than the land could afford, and so betook themselves to the water. With infinite labour, considering the means and appliances at their disposal, these people cut down young oak-trees, which they carried to the lakes and drove into the clay or mud around the shallows of these islands, which were usually, I believe, covered with water in winter; and having thus formed a stockade which rose above the water into a breastwork, probably interlaced with saplings, they

floored with alder, sallow, or birch, to a suitable height above the winter flood, the space so enclosed, and on this platform erected wooden cabins. One large flag, at least, was also carried in for a hearthstone, or common cooking-place; and one or more querns, or hand-mills, have almost invariably been found in the remains of these crannogs.'

As far back as 1810 a lake-dwelling was discovered at Roscrea, but no special attention was given to it, as its precise nature was not understood. In 1839 the curiosity of Wilde and Petrie was aroused by the very frequent visits of a dealer bringing quantities of antiquarian objects for sale to the Royal Irish Academy These, he said, had been found in the bog of Lagore, near Dunshaughlin, Co. Meath. A visit was paid to the spot, and a large collection of weapons, articles of personal and domestic use, objects of bone and wood were seen. This collection was unfortunately soon scattered, though some of it was secured for the Academy Museum. The Lagore lake-dwelling stood at a slight elevation above the surrounding bog, and consisted of a circular mound 520 feet in circumference. The waters of the lake in which it stood had been drained many years before, and during some subsequent operations on the stream, a quantity of bones were found; numbers of bone-gatherers came and carted off 150 loads, which were sent to Scotland for the manufacture of manure. The island was formed by 'upright posts of black oak, measuring from 6 to 8 feet in height; these were mortised into beams of a similar material laid flat upon the marl and sand beneath the bog, and nearly 16 feet below the

present surface. The upright posts were held together by connecting cross-beams, and (said to be) fastened by large iron nails; parts of a second upper tier of posts were likewise found resting on the lower ones.'

The plan of the huts—there were probably six or eight originally—is described from the personal observation of Mr. Wakeman, made in the summer of 1848, at which time a portion of the 'island' was re-opened for the purpose of turf-cutting. Here a foundation, consisting of four rough planks of oak, each about 12 feet in length, was arranged so as to form a quadrangle. The ends were carefully fitted together, and secured by strong iron nails, with flat heads about the size of a shilling. From the angles of this square rose four posts to the height of about 9 feet. In these grooves were cut, into which roughly-split planks of oak had been slipped, so as to form the sides of the dwelling. There seems to have been no provision for the admission of air or light, except a small opening in one of the sides, which must have served as a doorway. The roofs, like the sides, were formed of oak boards, quite flat, and were probably covered originally with sods or other vegetable matter. The enclosing circles of piles 'or hedges,' as they were sometimes styled, at Lagore, had been all but obliterated before any archæologist had visited the place. Nevertheless, down to the period of the first visit some traces remained. These consisted of half-burnt beams, intermixed with large quantities of wood-charcoal. We gather from history that Lagore once stood as one of the safest and, as there is reason to believe, richest of the

lacustrine habitations of Ireland. It belonged, in fact, to the O'Melaghlins, a regal family in Meath, and was probably their principal stronghold. Upon this place the Danes of Dublin had long set their eyes, but had never been able to place their feet; until mustering an army, and carrying with them from Dublin Bay one of their war-vessels, they were able, by aid of the latter, to take and sack the crannog. This was in the ninth century.

Other remains of log-walled huts have been found in Irish lake-dwellings, particularly in Ulster. The most interesting example yet known—one indeed that is unique among those hitherto discovered in the lake-dwellings of Europe—is that described by Captain Mudge in 1853. It lay 16 feet beneath the surface of a bog at Drumkellin, near Inver, County Donegal; and, not allowing for the lake depth, at least 26 feet of bog must have grown on the site since its erection. Within the hut was found a stone hatchet, the cutting edge of which is said to have exactly fitted certain indentations which were observable in several of its timbers, all of which were of oak. Dr. Keller found that the piles used in the construction of the dwelling at Ober Meilen had been cut with stone implements; and experiments made on green timber with the stone axes found on the site clearly demonstrated the fact.* The Drumkellin hut was perfectly square in plan, 12 feet each side, and 9 feet high. 'The framework was composed of upright posts and horizontal sleepers mortised at the angles, the end of each upright post

* *Lake-Dwellings*, vol. i., p. 23. 2nd ed.

being inserted into the lower sleeper of the frame, and fastened by a large block of wood or fore-lock.* The interstices were filled with a composition of what appeared to be grease and fine sea-sand. The interior was divided by a flooring into an upper and a lower chamber, which were probably only used as sleeping-apartments. Portions were found of the gates of the staked enclosure within which it stood, resting on a floor of hazel branches covered with fine sand. There is a model of this hut in the Royal Irish Academy collection.

At Kilnamaddo, County Fermanagh, and other places, remains of log-huts have been found. The huts at Kilnamaddo were of a very primitive kind, and lay buried under 17 feet of peat; they were but 4 feet in height and constructed of oak beams. Some of these showed long clean cuts; and others, 7 feet in circumference, had mortise-holes pierced through, which could only have been done with metallic instruments. The remains at Dunshaughlin—or, more correctly, Lagore—crannog, though probably of later date than the Drumkellin hut, were very similar to it in character; they, however, presented no upper chamber.†

Soon after the discovery at Lagore, another lake-dwelling was discovered in lowering the waters of Roughan Lake, near Dungannon. Here were found many fragments of pottery and bones, some bronze spear-heads, and a fine sandstone quern, having an old Irish cross carved in high relief. To this 'fortified

* *Catalogue* R.I.A., p. 235.

† *Archæologia*, vol. xxvi., p. 361.

island' Sir Phelim O'Neill retired after the surrender of Charlemont, and held out until boats arrived, when he was captured in 1653. About the time of these discoveries, another 'island' was laid bare in Lough Gur by similar draining operations; and a large number of objects of antiquarian interest, and quantities of bones, were discovered. This is considered to be one of the earliest lake-dwellings in Ireland; and the district, as we have already intimated, is exceptionally interesting from an archæological point of view. There appears to have been no staking or surrounding timber enclosure in connection with this crannog. Other discoveries quickly followed; three stockaded lake-dwellings were found in Monaghan (1843–4). One in Ballinderry Lake, near Moate, yielded a large quantity of antiquities and bones, and two canoes. In the drainage of Lough Faughan, County Down, another 'dug-out' canoe was found. During the work of the Commission for the Arterial Drainage and Inland Navigation of Ireland, twenty-two crannogs were discovered in the Ballinamore and Ballyconnell districts. The report of the officers of the Board of Works may be thus briefly stated: The crannogs were generally circular, and from 60 to 80 feet in diameter; some were larger, of an oval shape. The stakes were mostly of young oak trees, from 4 to 9 inches broad, usually sunk in a single row; some, however, were double, and in a few cases treble. The portions remaining in the ground usually showed hatched marks. Within the enclosure, the surface was sometimes covered over with a platform of round

logs, from 4 to 6 feet in length, on which was a layer of mixed stones, clay, or gravel. This construction was in some cases confined to a portion of the island. 'Besides these, pieces of oak framing, with mortises and cheeks cut in them, have been found within the circle of the outer work.' In almost every instance a hearth made of flat stones was found near the centre of the crannog; and in some instances two or three such hearths existed. One or more querns were usually discovered; and upon the enclosure or around it were found large quantities of bones, usually those of cattle, deer, and swine.

Some of the lake-dwellings were of considerable dimensions, and contained the remains of several huts. Others were of very small proportions, and capable of holding but one poor dwelling. All, however, were strongly stockaded, and were fairly secure retreats for their occupiers, who, no doubt, would have managed that no boat or currach, except those which they had with them upon the island, remained in the neighbourhood. The remains of causeways connecting the islands with the shore and with each other have, in many cases, been found. These were built in the same manner as the lake-dwelling—on piles, with branches, earth, and stone thrown between. In some instances, the approaches may have been submerged, as, from the winding direction they took, they could only be used by those well acquainted with them.*

The larger crannogs, like those of Ballinderry, Lagore, and Lough Gur, were of the character of

* *Lake-Dwellings of Europe*, by Robert Munro, M.D., p. 477.

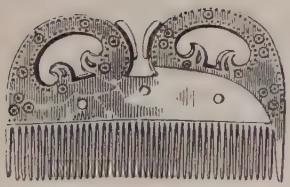
fortresses, differing in little, except in position, from the dun or cahir on land. Their 'kitchen-middens,' when examined, brought forth exactly the same class of remains—stone, flint, bronze, iron, bone, wood, and glass.

Bone Pins, &c., from Lake-dwellings in Counties Sligo, Leitrim, and Roscommon (scale, about one-third).

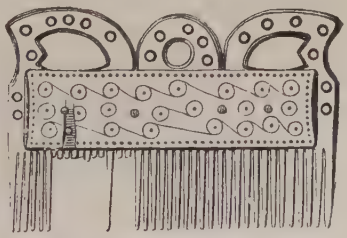
A peculiarity of the 'finds,' in connection with the greater islands, was the enormous quantity of animal remains, often amounting to hundreds of tons, with which the stockades were found surrounded. These usually consisted of the bones of the *bos longifrons*

and *bos frontosis*, of the *cervus elaphus*, or red deer, wild boars, horses, asses, sheep, foxes, wolf-dogs, and occasionally of human beings. Intermixed with the osseous *débris* of crannogs, very frequently occur numerous articles of early manufacture — pottery, swords, spear-heads, battle-axes, knives, chains and fetters, spears, reaping-hooks, saws, gouges, brooches, whorls, small frying-pans and pots, horse-furniture, crucibles, beads—of jet, of glass, and of amber; combs, tweezers, pins and needles.

Glass Beads, from Lake-dwellings



Comb, from Lagore Lake-dwelling.



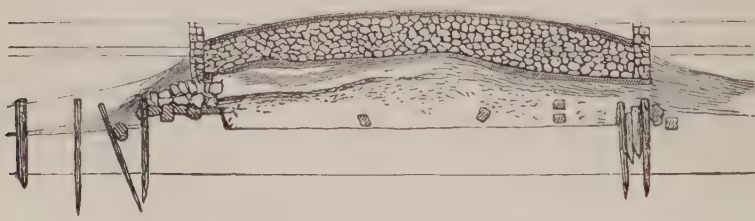
Comb, from Ballinderry Lake-dwelling.

Few ornaments or other articles formed of gold or silver have been found in Irish crannogs. There is also an absence of coins, except those of very late date, the celebrated 'brass money,' from the mints of James the Second, being the most common. Such

coins had probably belonged to outlaws or rapparees, who, after the downfall of the Stuart cause, were compelled to live in places difficult of access, and had sought the ancient crannogs as exceptionally safe retreats.

Comb (restored), from Ardakillin Lake-dwelling.

By drainage operations, crannogs were laid bare in the Lakes Ardakillin, Cloonfinlough, and Clonfree, near Strokestown, in 1852. These proved exceptionally rich in 'finds,' consisting of implements and personal and domestic articles of bones, bronze, and iron. The surface of Cloonfinlough seemed to have been twice laid. Here a skull was found: and among the bronze articles was a



Section of Ardakillin Lake-dwelling, Co. Roscommon.

lamp of Roman type. One of the four crannogs in Ardakillin yielded 50 tons of bones. The section of another is here given. 'Under a slight earthy deposit, there was a deep layer of loose stones, bounded by an enclosing

wall, the foundation supported by piling. The lower portion of the island consisted of clay, peat, and stones, mingled with strata of ashes, bones, and logs of timber. The various rows of oak-piling are shown in the section; the sheet-piling, driven in obliquely, formed an unbroken circle round the island.'* The 'finds' were numerous and varied, including bone pins and combs, articles of bronze, beads of stone, glass, and amber. Near the crannog was found a canoe 40 feet long, made from a single oak trunk; in it were discovered a skull, spear-head, and bronze pin. The skull showed that it had received twenty cuts with a sharp weapon, and though no one cut necessarily proved fatal, death no doubt ensued from the accumulated injuries. Up to the year 1857, forty-seven lacustrine dwellings had been discovered; and since then the work of investigation of these sites has been steadily carried on; and the number now known is over 230. Of these, Ulster has about one-half, and Connaught one-third. The Lisnacroghera crannog, near Broughshane, County Antrim, was discovered in 1882; but its features had been destroyed before a proper examination could be made of the site. Most of the 'finds' fell into the hands of the late Canon Grainger; many of them were of exceptional value, and will be treated of in another chapter.

But the impetus given to this branch of archæological exploration throughout Europe was more directly due to the discovery of dwellings similar in character in the lakes of Switzerland. In 1829, piles were discovered at Ober Meilen, on Lake Zurich; but it

* *Lake-Dwellings of Ireland*, Col. Wood-Martin, p. 236.

was not until the very dry and cold winter of 1853–4, that the inhabitants, in raising silt from the shallows of the lake to reclaim the higher portions of the shore, laid bare the piles of ancient lacustrine dwellings, and discovered a large quantity of stone and flint weapons, utensils, broken pottery, dug-out canoes, bones of wild animals, one human skull, and portions of several skeletons. On a careful examination, Dr. Keller was of opinion that the piles formed the foundation of a platform raised above the surface of the water upon which the huts were built, and that the place had been destroyed by fire after it had existed for a long period as the site of human habitation. Many similar discoveries in other lakes rapidly followed; and over 200 of these sites are now known in Switzerland. Their area of distribution has been found to extend throughout France, Germany, Austria, South Europe, and Asia Minor. The plan of the pile-buildings (*Pfahlbauten*), it will be seen, differed from the fascine method of construction generally practised in the erection of the British lake-dwellings. In Ireland, however, clusters of crannogs sometimes occur—as in Lough Eyes, County Fermanagh—and were, as is evident from existing remains, connected together by submerged causeways, or by approaches raised high and dry on piles. 'A third method,' says Dr. Munro, 'was to construct, in close proximity to each other, a series of rectangular basements of wood, each basement having its sides formed by horizontal beams lying one above the other, and overlapping at the four corners, like the logs in a Swiss châlet. These compartments measured only a

few yards in diameter. Their lowest beams rested on the bed of the lake; and when the requisite height above the water was attained, the usual platform was laid across, and the cellular spaces underneath became covered over. . . . This plan appears to have been adopted chiefly by the founders of the sporadic dwellings of the Iron Age.'* The population inhabiting the Swiss lake-villages must have been at one time very great. The settlements were on an extensive scale; and it has been estimated that from 40,000 to 50,000 piles were used in a station of the Stone Age period at Wangen, in Lake Constance, while some still larger required little short of 100,000. These lacustrine settlements were especially exposed to the danger of fire; but, as Dr. Munro points out, this 'was the most fortunate event from an archæological point of view that could have happened.' In the hurry of escape, little would be carried away; and perishable articles slightly charred were better able to resist the destructive agency of water.

In Scotland the first important discovery of lake-dwellings was made in 1863 in draining operations at Loch Dowalton, Wigtownshire, by Sir Herbert Maxwell. The remains contained Roman articles, which showed that the crannog was occupied during the period of the Roman occupation of Britain. With these exceptions, the remains were precisely similar to those found in Irish crannogs. Fifteen years later, the Lochlee crannog was explored, which was the beginning of a series of excavations in the counties of Ayr and Wigtown.

* *Prehistoric Scotland*, p. 427.

Among later discoveries, the Lochan Dughaill lake-dwelling in Argyllshire disclosed the remains of a circular hut, in the centre of which was the stump of an upright post, with which the radiating planks were connected. The ends of these had square-cut holes in which the ring of uprights were fixed; but how these were connected with the central support for roofing was not apparent. Here fragments of glazed wheel-made pottery were found. Near Lanark, the Hyndford crannog, discovered in 1898, yielded a polished celt, and other stone objects; portions of querns; pieces of six different vessels of red 'Samian' ware, and others of the grey Roman pottery; an axe, and other objects of iron.

In England the remains of lake-dwellings are few. In 1868 General Pitt-Rivers described the discovery of piles in beds of peat, 7 to 9 feet deep, near London wall and in Southwark. The kitchen-middens yielded articles, chiefly Roman; but there were other objects of bone of a ruder type. Lake-dwelling remains were found in the Holderness, in 1880, during draining operations. The most important discovery of the kind yet made in England was that of the Glastonbury lake-dwellings, by Mr. Arthur Bulleid, in 1892. Here some seventy mounds lay close together in low ground, which was once apparently under water. The 'finds' consisted of a large and varied assortment of stone, bone, bronze, iron, amber, pottery, glass, etc. There was an absence of any Roman influence in the Glastonbury settlement; while many of the objects were of the Late Celtic period. 'This feature alone,' says Dr. Munro,

'gives to the Glastonbury lake-village an exceptional importance among the lacustrine researches hitherto prosecuted within the British Isles.'

Of the exploration of Irish crannogs in recent years, that of Moylarg, County Antrim, was carefully carried out under the personal supervision of the Rev. Dr. Buick. The clearing laid bare a quantity of well-constructed woodwork, showing a system of log-supports to the piles, radiating beams, and uprights mortised into the base beams. 'The layers of branches, rushes, and bracken were tightly packed together; stones large and small laid in between; and the whole well pinned down by stakes of hazel about the thickness of a man's leg. These stakes had been pointed with a sharp metallic axe, three cuts as a rule sufficing to complete the operation.' The 'finds' consisted of over 250 pieces of flint, mostly chips, an arrow-head, stone celt, a number of tracked stones, whetstones, and quern remains; bones of the ox, goat, pig—all broken for marrow—and red deer antlers; of bronze, a strainer of fine type with iron handle, an ingot and its mould, and a few other articles; four glass beads; fragments of leather; of pottery, a huge number of pieces; of iron, an axe of gallowglas type, portion of a mediæval lock, a chisel-like implement, nails, knife, half shears, and spear-butt; a lead pendant of Late Celtic pattern, and portion of a cross of ninth or tenth century type.* Similar operations have been carried out recently by Dr. S. A. D'Arcy in several crannogs in the neighbourhood of Clones. The 'finds'

* *Journal*, Roy. Soc. Antiq. Ir., 1893, p. 27; 1894, p. 315.

were numerous, and generally of the various classes already described.*

An interesting discovery of a 'submarine' crannog was made by Mr. R. J. Ussher, in 1879, at Ardmore. The action of the sea had washed away the shingle, and exposed a double row of pile remains enclosing an oval space measuring 100 feet in diameter. The stratum of turf was 9 feet thick. The encroachment of the sea is due to the subsidence of the land on the southern shores of Ireland well within the periods of human occupation.†

Examples of what have been designated 'Lake Stone-dwellings' or 'Stone Crannogs,' are to be found in the lake-riddled district of Connemara, to which attention was called by Mr. G. H. Kinahan in 1872. These islands have been wholly or in part formed of stones, and enclosed by a wall similar to the cashel of the land fortification. That of Hag's Castle, in Lough Mask, with a thick encircling wall, is the largest of the kind. Others exist in a lake on Goromna Island, in Lough Bola, near Carna, and Lough Cam, near Roundstone Bay, and in Ballinafad Lough, near Ballinahinch.‡ Mr. Layard has described those in Lough Skannive, near Carna; but no exploration of their contents has yet been attempted in any of these islands.§

It is not to be supposed that all lake-dwellings are of great antiquity; some are no doubt of much earlier date than others, but the question of their precise age is

* *Journal*, R.S.A.I., 1897, pp. 205, 389; 1901, p. 204.

† *Proceedings* R. I. A., vol. ii., 2nd. ser.

‡ *Journal*, R.S.A.I., 1872, p. 10. § *Journal*, R.S.A.I., 1897, p. 373.

especially complicated from the fact that, at whatever period they were constructed, many were occupied through a long period of historic time. Crannogs are frequently mentioned in the Irish 'Annals,' and they enter into the composition of several place-names. Many of them suffered from the attacks of the Norsemen, as records tell us. We have clear historic evidence of the occupation of some of the lake-dwellings throughout the Middle Ages, and through the Elizabethan wars down to the middle of the seventeenth century.* In many, as we have seen, flint cores, with flakes, scrapers, knives, and arrow-heads, have been found. With them sometimes occurred stone celts, exactly similar to examples found in primitive cists, with burial urns and evidences of cremation. No doubt crannogs yielding flint and worked stone should be regarded as the oldest; yet from the fact that spear-heads, celts, and other articles of bronze, and even of iron, are at times found plentifully amongst their piling, or in the surrounding bog stuff, we must conclude that these islets had been used by a people well skilled in the art of metallurgy. It is necessary, too, to point out that year by year additional evidence is produced to show that in Ireland at least the apparently contemporaneous use of flint, stone, bone, bronze, and iron in the preparation of weapons, implements, and ornaments for the person, had existed throughout a long period of time. In addition to the mixed 'finds' already mentioned, there were found, in a Monaghan lake-dwelling described by

* *Lake-Dwellings of Ireland*, Col. Wood-Martin, pp. 145–60. *Catalogue* R.I.A., pp. 229–33.

Mr. Shirley, stone celts, a worked flint, apparently intended for an arrow-head, three looped bronze celts, a dagger and chisel of bronze, as also two bronze arrow-heads and a shield-boss of the same metal, accompanied by iron remains. At a place named 'The Miracles,' near Monea, Co. Fermanagh, in 1875, a lake-dwelling, the remains of which Mr. Wakeman had an opportunity of examining, was discovered by turf-cutters. Here a fairly polished axe-head, or celt, was turned up, together with a number of articles composed of bronze, which, from the description given by the people who had found them, were probably fibulæ. That, during some portion of the period of its occupation, inhabitants of this crannog were in the habit of manufacturing objects of iron was evident, as pieces of iron slag, quantities of wood charcoal, a well-formed crucible, sharpening-stones, and at least two grinding-stones were found amongst the *débris*. In the nearly-drained site of Loughavilly, the 'Loch of the ancient tree,' near Toppid Mountain, Co. Fermanagh, are the remains of a piled mound, formerly an island. Here were found a stone celt and lumps of iron slag. Traces of charcoal were abundant; but, from the softness of the surroundings, it seemed quite hopeless to penetrate to any extent into the mud or pulp in quest of discoveries.

Similar cases of 'finds' could be multiplied many times; it is sufficient to state that in nearly every crannog hitherto discovered, and more or less explored in Ireland, articles formed of flint or stone, and similar in every respect to remains usually assigned to the Stone Age, have occurred, and in apparent connection

with implements of bronze and iron. The necessity for the use of stone celts discovered in the lake-dwellings is not clear; for it is certain that the long clean cuts which appear on the ends of the pilings or stakes by which the islands are encircled, could only have been made with sharp metallic implements of the axe or adze kind. Such objects are very common in crannog remains; and some have been found furnished with well-steeled cutting edges, while the remainder of the head consisted of soft iron. The mortice-holes so often found in the framework of the islets, and in the larger timbers of the huts, were evidently worked out by the use of metal chisels, which may have been formed either of bronze or iron.

The huts of Drumkellin and Kilnamaddo are perhaps among the earliest remains of lake-habitations yet found within the British Isles; but whatever claim they may have for classification among the earliest lake-dwellings of Central Europe, the Irish crannogs, as a whole, seem to have no such claim. And as regards these huts, 'the relics,' as Dr. Munro says, 'are too few to justify such a sweeping conclusion as that these dwellings were constructed at a period when metal implements were unknown in the country. At any rate, there can be no reasonable doubt that the period of greatest development of the Scotch and Irish lake-dwellings was during the Iron Age, and at least as far posterior to Roman civilization as that of the Swiss Pfahlbauten was anterior to it.'*

* *Lake-Dwellings of Europe*, p. 489.

Crannog Pottery.—The remains of fictile ware, discovered in crannogs, afford an opportunity of comparing the pottery of the lake-dwelling inhabitants with the urns used for sepulchral purposes, which are found in the cairns, cists, and tumuli. The fragments found in the lake-dwellings have been numerous; but, owing to the fragile nature of the ware, no perfect example has yet been discovered. They are larger than the cinerary urns and broader at the base. The shoulders are provided with perforated ears, affording a means of suspension by leather thong or withe. The colour of this ware varies from light drab to extremely dark brown, though a few have been found which were slightly red in appearance. The ornament which they usually bear is a chevron, or a herring-line pattern, such as are often found upon fictile ware discovered in sepulchral tumuli, as well as upon several varieties of bronze celts and other weapons or instruments. Others have dots and lines; but in general style and finish they are of a much inferior type to the cinerary urns.

In no single instance has there been discovered a trace on crannog pottery of what might be called Christian art or design. All the earthen vessels of this class hitherto found were hand-made, and appear to have been well burnt. They are invariably unglazed; and in many examples the action of fire would seem to have been more intense internally than on the exterior. The material is invariably sandy clay; possibly the grit was added in order to afford greater consistency to the paste. Most of the vessels show this sand distinctly; and in the ruder specimens particles of

white stone, occasionally the size of a small pea, and sometimes no bigger than the head of a pin, may be noticed roughly projecting from their sides. A number of flat discs of the same material as the vessels were found with them, which seemed to have been their covers or lids. A curious provision for the escape of steam during the process of boiling or cooking is observable in some of these earthen pots. It consists

Cooking-Vessel from Lough Eyes, Co. Fermanagh.

of a small circular aperture in the neck or upper side of the vessel, just below the point where the lid would be supported or caught. It is not possible to determine whether these vessels, when entire, were invariably perforated or otherwise; the aperture, however, occurs in some of the specimens preserved. Vessels which were of this type and exact style of ornamentation appear to be extremely rare; but they have been

discovered in some districts of North America, and in Indian burial mounds of remote but unascertained date. The principal sources of this pottery in Ireland were the crannogs of Ballydoolough, Drumgay, Lough Eyes, Drumdarragh, and Lankhill, all in the county of Fermanagh; but valuable specimens have been found at Lisnacroghera, and other places. As these discoveries were subsequent to the compilation of Wilde's *Catalogue*, particulars of this ware do not figure in that work.

The art of carving designs on bone and wood was

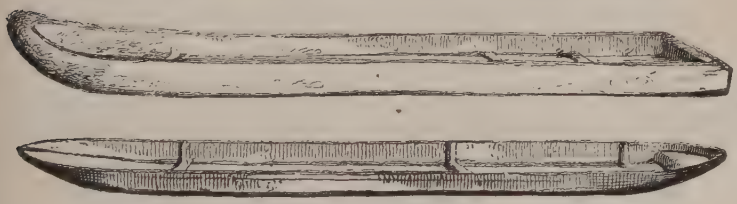
Horn Drinking-cup.

Wooden Mether or Drinking-cup.

largely practised by the ancient Irish, as many examples on the former material, less perishable than the latter, found in crannogs and elsewhere, show. They possessed plenty of timber, and were adepts in manufacturing *Methers* or *Madders* (so called from being used in drinking mead or metheglen), and other household vessels, principally out of alder, oak, yew, willow, beech, and elm.

Canoes.—Single piece *Canoes* or 'dug-outs' may be

divided into the three following classes: The first are trough-shaped, rounded at the bottom, and are from 8 to 12 feet in length. Some of these are furnished at their extremities with handle-like projections by which they were probably lifted and carried overland from lake to lake, or from river to river. Some few, instead of having handles, are furnished at their ends with slits sufficiently large to admit the fingers of a man's hand. These indentations or incisions no doubt served the purpose of the projections referred to. The second are flat-bottomed, with rounded prow and square stern;



'Dug Outs,' or Canoes.

they average 20 feet in length and about 2 feet in breadth. This class varies in depth according to their state of preservation, while the bottoms of some are rounded and have both ends square. The third class have a greater length of beam; one from Lough Owel, in the National Museum, measures 42 feet in length by from 4 to 5 feet in width. This canoe is shallow, and apparently had 12 holes cut through each side, and about 20 holes through the bottom at regular intervals; it has unfortunately been sawn across into pieces. The prow curves upwards, and the bottom is slightly rounded. Many of the canoes have been found in

bogs, apart from known crannog sites, and in the beds of lakes and rivers. Some fine specimens of these may be seen in the National Museum. The largest ever discovered in Ireland has recently been added to the collection. It is hollowed out of a single trunk, is about 52 feet long, and of great weight. This remarkable canoe was found at Miltown, near Tuam, and purchased in the spring of 1902.

Oak paddles, well formed, and measuring about 4 feet in length, often occur in connexion with the canoes. It is very probable that the *Currach* or 'cot' formed of basket-work, covered with skin of the cow, horse, or deer, was in use amongst the lake-dwellers. Owing to the perishable nature of the materials none of these have been found. That they were used at an early period in the British Isles is attested by Roman writers. The primitive willow-ribbed and basket-woven cot, with water-tight covering, has been used by the fishermen on the Boyne down to our own day. The canvas-covered skiffs of to-day in Clare, Galway, the Aran Isles, Mayo, and Donegal are the survivals of a similar type which have been used by the dwellers on the Atlantic coast from early times.

CHAPTER X.

ORATORIES: EARLY CHURCHES.

EARLY MONASTIC LIFE—SKELLIG MICHAEL—GALLERUS—KILMALKEDAR—BISHOP'S ISLAND—HIGH ISLAND—INISMURRAY—DESCRIPTION OF EARLY CHURCHES — KILLINEY — KILTERNAN — ST. MAC DARA'S CHURCH — GLENDALOUGH AND ITS CHURCHES — STONE-ROOFED BUILDINGS—FRIAR'S ISLAND—ST. COLUMBA'S HOUSE, KELLS—ST. FLANNAN'S CHURCH.

IT was long considered an established fact that the churches of Ireland, previous to the twelfth century, were altogether constructed of wood, or wattles daubed with clay. It was consequently held, on the authority of Ware, that there remained in the country not a single example of church architecture of a period much antecedent to A.D. 1148, in which year died Malachy O'Morgair, who is stated to have erected at Bangor the first ecclesiastical building of stone that had ever appeared in Ireland. The well-directed labours of George Petrie, in seeking among the archæological remains themselves for evidence by which their era might be determined, and in adducing the testimony of Irish manuscripts relative to such structures as were in use at the time of their composition, removed the veil of obscurity which had so long shrouded the subject of Irish ecclesiastical

antiquities. He showed that the country not only contains examples of church architecture of the earliest period of Christianity in the kingdom, but also that they exhibit many characteristics of exceptional interest. Though wood appears to have been the material of which the first churches were built, where stone was not abundant and otherwise unused, they were subse-

Clochaun na Carriage, Aran Island.

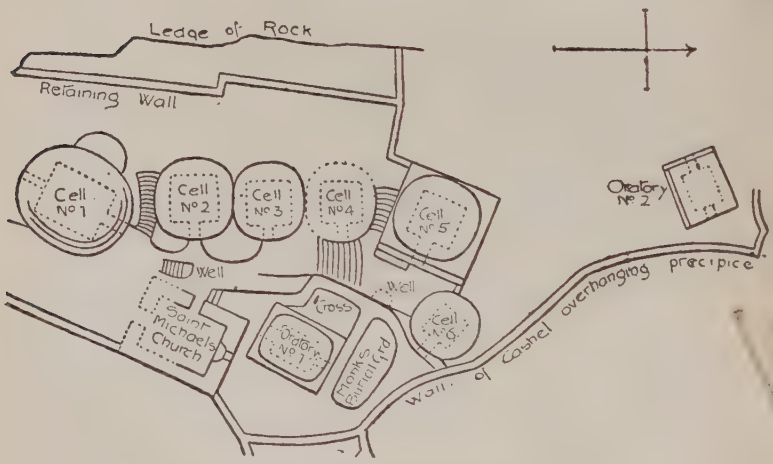
quently constructed of stone, and from their small size and peculiar features are among the most interesting remains now existing. The buildings called oratories were evidently intended for the private devotions of the founders, whose graves are so frequently to be found in their immediate neighbourhood. The most

singular of these are in the west and south-west of Ireland, and they are generally in sequestered and isolated spots, not only on the small and almost inaccessible islands off the coast, but on mountain tops and lonely lake islands.

Following the ascetic practices and the monastic life of the early Eastern Church, these places, far remote from the abodes of men, were selected as retreats by the early missionaries of the Irish Church. On the wild and almost inaccessible Skellig Rock, on Slieve League and Brandon Mountain, in Gougane Barra Lake, on High Island, Inishglora, Inismurray, and numerous other isolated places, stone cells and oratories were erected, alone or in connection with monastic settlements. The clochaun form of building found in use was adopted, and it was upon this type of rude structure that the first buildings for Christian Church purposes were erected in these places. The monastic cells soon changed from the pagan circular or oval shape, and became rectangular, in the first instance internally, as we find in those of the Skellig remains, which are of a very rude type, and are perhaps the earliest of the kind now existing.

Skellig Michael.—The Great Skellig lies south-west of Valencia, and about 10 miles from its nearest point. It is called Skellig Michael, from St. Michael the patron saint of high places, as in the isolated rocks in Cornwall and Normandy, also dedicated to him. The Skellig rises magnificently to a height of 704 feet, and a flight of steps originally ran up the face of the cliff to the settle-

ment which stood on an artificial plateau at a height of 545 feet, protected from the edge by a fine cashel of similar masonry to Staigue Fort. The lower portion of the path has been cut away by a new road to the lighthouse, but 620 steps still remain leading to the ruins. These consist of six beehive cells, two oratories, several cemeteries and rude crosses, two wells, and the more recent Church of St. Michael. Five of



Plan of Monastic Settlement, Skellig Michael.

the cells lie close together in a row, one being at a higher level than the other four; and in a line beyond to the north is a small oratory, right on the edge of the cliff. The remainder of the buildings stand on a lower level of the enclosure. All the buildings, except the church, are constructed of dry rubble masonry. One of the cells is wholly rectangular, and the remainder

shaped as already stated; the roofs are formed in the usual fashion, by overlapping, and a small opening was

The Great Skellig, or Skellig Michael.

left at the top to emit smoke. The oratories are similarly constructed, but are entirely rectangular, and

Bee-hive Cells, Skellig Michael.

have a window facing the doorway. For centuries the

Skellig was a great place of pilgrimage, and men and women alike performed it. Having visited the ruins, they climbed the highest peak, an ascent which was attended with the utmost peril and risk. The penance is not now practised.

Gallerus.—The Oratory of Gallerus stands about five miles north-west of Dingle, and is the most beautifully constructed and perfectly preserved of these ancient buildings now remaining in Ireland, and is probably not excelled by any building of the kind in Christendom. The plan is rectangular; it measures 15¼ feet in length by 10 feet in breadth inside, and 22 feet by 18½ feet outside; while its height without is 17 feet 2 inches at the west, and 13½ feet at the east end; within, the height is 13¼ feet. The roof is formed by the gradual approximation of the side walls from the base upwards. It is entered by a square-headed doorway in the west gable, with inclining jambs, 5½ feet high, 21 inches at the top and 27 inches at the bottom (outside). On each side above the lintel within is a projecting stone with square holes in which the door hung. The east wall has a deeply splayed window, with rounded top: it measures 15 inches by 10 inches outside, and 39 inches by 21 inches inside, inclining to 18 inches at the top. The batter of the walls is practically straight as high as the top of the doorway, but from this it is curved 'giving' as has been said, 'an outline like that of a pointed Gothic arch.' The surfaces of the stones within show by the tool-marks that they were dressed flat, and this was probably done after the courses were laid. At the

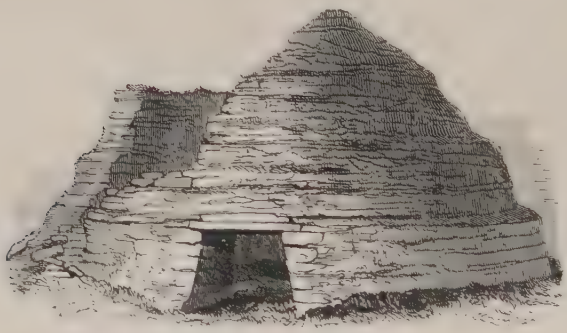
apex of the east gable is the socket of a mutilated cross.

Kilmalkedar.—About a mile to the north is the ruined Oratory of Kilmalkedar, similar in plan, general features, and nearly of the same dimensions as Gallerus. It is earlier than the latter, the masonry being of a

Oratory of Kilmalkedar.

ruder type, and the east window having a flat head, with an inward and outward splay—a unique feature in so early a church in Ireland. Another similar Oratory in the neighbourhood is Temple Gael, also in ruins. It differs, however, from the two former, in that the batter of the walls is straight and not curved.

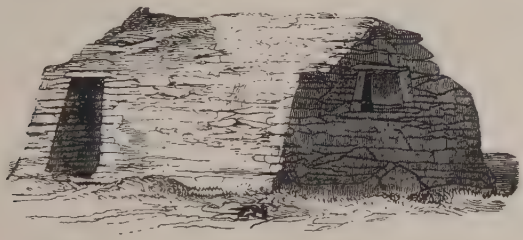
Bishop's Island.—A very interesting example of the monastic cell occurs upon the rock called Bishop's Island, near Kilkee, upon the coast of Clare. It measures in circumference 115 feet; the exterior face of the wall, at four different heights recedes to the depth of about 1 foot, a peculiarity not found in any other structure of the kind; this was probably introduced with the view of lessening the weight of the dome-shaped roof, which was formed, not on the principle



Bee-hive House on Bishop's Island, near Kilkee.

of the arch, but, as usual, by the gradual approximation of the stones as the wall ascended. The erection of the Oratory adjoining is traditionally ascribed to St. Senan, who lived in the sixth century, and whose chief establishment was upon Inis Cathaigh, or Scattery Island. It measures 18 feet by 12; the walls are 2 feet 7 inches thick; the doorway, which occupies an unusual position in the south side, immediately adjoining the west-end wall, is 6 feet in height, 1 foot 10 inches wide at the top, and 2 feet 4 inches at the

bottom; the east window splays externally, and in this respect is probably unique in Ireland. Several large monumental pillar-stones stand at a short distance from the church in an easterly direction, but they bear no inscriptions or symbols. Bishop's Island, or, as it is styled in Irish, *Oileán-an-Easpoiggortaig*, *i. e.* the 'Island of the hungry or starving bishop,' is a barren, precipitous rock, whose sides form perpendicular or overhanging cliffs, about 250 feet in height. It contains about three-quarters of an acre of surface, to



St. Senan's Oratory on Bishop's Island, near Kilkee.

which access is most difficult, and only to be effected by a skilful climber, and after a long continuance of calm weather.

High Island.—The Island of Ardoileán, or High Island, off the coast of Connemara, is also difficult of access, and landing can only be had in calm weather on its precipitous and rocky shores. Here a monastic establishment was founded by St. Fechin of Fore in the first half of the seventh century. The ruins, now in a state of great dilapidation, are near the centre of the northern part of the island which was cut off

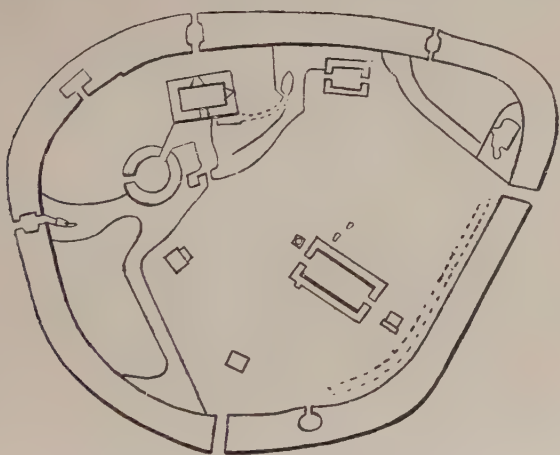
from the remainder by a wall. The buildings were surrounded by another wall or cashel with chambers, the remains of which are still existing. The church was a small rectangular building, 12 feet by 9½ feet internally, constructed of small stones and uncemented. The door is 4½ feet high with inclined sides, but the east gable is now defaced. Many clochauns once existed, but these are mostly destroyed. North-east of the church are two; one circular without and square within, measuring 9 feet by 7½ feet high; the other is smaller. In Petrie's work the former is suggested to have been the refectory of the latter, the cell of the abbot.

Inismurray.—The Island of Inismurray, to which we have already referred (pp. 21, 181), contains within and without its cashel very interesting early Christian remains. It probably took its name from Muiredach, a follower of St. Patrick, who placed him over a Church in Killala. It is, however, entirely associated with St. Molaise, the founder of the monastic establishment in this remote spot, and of whom the *Martyrology of Donegal* gives the following notice:—'August 12th, Molaisse, *i.e.* Laisrén, son of Deglan, of Inis Muiredaich, in the north, (*i.e.* the north of Connaught); he it was who at the cross of Ath-Imlaisi pronounced sentence of banishment on St. Columba.'*

In addition to the beehive cells already mentioned there are within the cashel of Inismurray three small

* See Adamnan's *Life of St. Columba* (Bishop Reeves), p. 286; and *The Celtic Church* (Dr. G. T. Stokes), p. 107.

churches. Teach Molaise, 'House of St. Molaise,' named after the patron Saint of the island, is the most interesting; it measures internally 9 feet by 8 feet, with walls of great thickness sustaining a complete stone roof. They are built of stones, generally of large size, and set with mortar in irregular courses; all except those forming the doorway and window casings are rough and unhewn. Teampull-na-Bfear is perhaps



Plan of Cashel and Monastic Settlement, Inismurray.

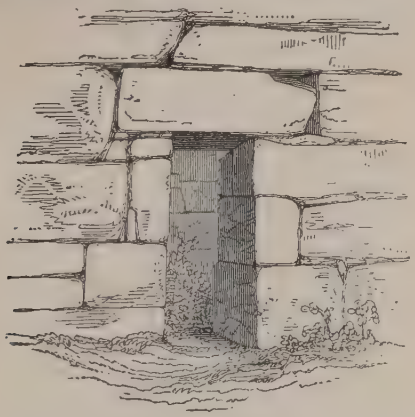
more of a church than an oratory, and forms an oblong 25½ feet by 12 feet. The ground on which it stands is the burial-place for men, that for women being at Teampull-na-mBan, or the 'Women's Church,' outside the cashel to the north-west. It is believed by the islanders that if a woman is buried in the men's ground the corpse will be removed, during the night, by unseen hands to the women's cemetery, and *vice versâ*. Team-

pull-na-Teindh, or the 'Church of fire,' is the most modern, and probably dates from the fourteenth century. There are three altars also within the cashel, besides others without, numerous cross-inscribed stones, two holy wells with beehive stone coverings, and the stations of the pilgrims. The last station is Reilick Odrain, the 'Cemetery of Odrain, or Oran,' the companion of St. Columba, who also gave his name to a burial-place, Reilig Oran in Iona. St. Molaise or Laisrén, of Inismurray, is not to be confounded with St. Molaisi Diamhinsi, or Devenish, son of Nadfraoich, whose festival day is the 12th September. In Devenish Island in Lough Erne will be found the house or oratory of this saint, the walls of which were built of massive stones, but the cell is now in ruins.

The progress of Christianity in Ireland in the first few centuries of its establishment, and the missionary zeal of its apostles abroad, brought the Church into close union with ecclesiastical foundations in Britain and on the continent of Europe. To the connection thus established is doubtless due the marked improvement in the architecture of the early Christian churches from the primitive oratories, although in these we see an advance in certain features on the pagan clochaun. The early Churches show a further development in dressed masonry, mortar-built walls, and high pitched roof, and, in point of antiquity, they may be classed amongst the most remarkable structures of primitive Christian times now to be found in Europe. Of their usual characteristics we shall here give a brief description, referring the reader who may desire more than a

general sketch to Petrie's work, the *Ecclesiastical Architecture of Ireland*, in which the subject has been fully discussed.

Doorways.—The doorways are generally inclined and are covered by a horizontal lintel, or headed with a semicircular arch, springing from plain, square-edged imposts. Occasionally the arch is cut out of a single stone. At Glendalough are examples in which the



Doorway, Church of St. Colman Mac Duach, Aran Island.

lintel is surmounted by a semicircular arch, the space between being filled up with masonry. The stones generally extend the whole thickness of the wall. Few of the very early doorways exhibit any kind of decoration beyond a plain projecting band, of which there are some fine examples at Glendalough. The door appears to have been placed against the interior face of the wall, as in many instances the stones, for a distance of about three inches from the angle, have been

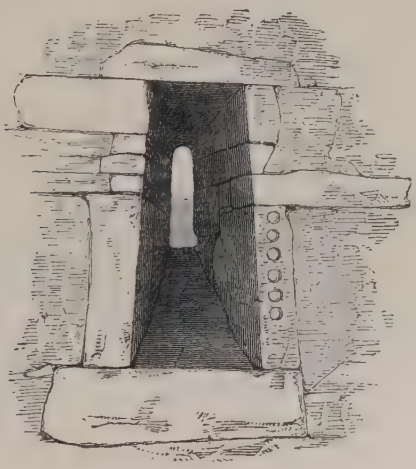
slightly hollowed, evidently for the reception of a frame. Great blocks of stone form the lintels of some of the churches; that of St. Fechin, of Fore, Westmeath, measures 6 feet by 2 feet, and is the full thickness of the wall—3 feet. The lintel of St. Colman's, Kilmacduagh, is nearly of the same dimensions; and the doorway of the church of the same saint within the cashel, at Kilmurvey, has a lintel $5\frac{1}{2}$ feet long, $1\frac{1}{2}$ feet high, and extends the full thickness of the wall—$2\frac{1}{2}$ feet.

Window, Teampull Ceanannach, or Kilcananagh, Aran.

Windows.—These are invariably small, and, with one or two exceptions, splay internally. They are headed, generally, with small semicircular arches, either formed of several small stones, or cut out of a single large one; but the horizontal lintel is common, as is

also a triangular head. The sides of the windows, like the doorway jambs, almost invariably incline. They are rarely decorated, and then in the simplest manner, by a projecting band, similar to that occasionally found upon the early doorways, or by a small bead.

Choir Arch.—In the very ancient churches to which chancels are attached, the connecting arch is invariably semicircular, square-edged, and plain. In the earliest form the arch springs from the jambs without imposts; but later these were inserted with chamfered edges, slightly projecting, the arches some-



Window, Termoncronan, Co. Clare.

times rising from within the edge-line of the jambs. The arch is usually formed of stones fairly equal in size, well hammered, and admirably fitted to each other. The greater number of primitive Irish churches, however, have no chancel, their plan being a simple oblong.

Where chancels, however, occur in these, they were evidently a later addition, and were not bonded into the walls of the nave.

Masonry.—Generally the masonry consisted of very large stones, well fitted together, as in work to which the term 'cyclopean' is applied. Many of these vary from 6 to 17 or 18 feet in length; one of the latter size runs the entire breadth of the church called Teampull Ceanannach, in Inishmaan (Aran). In some of the oldest examples no mortar appears to have been used; but these instances are very rare, and mortar is generally found cementing enormous stones, but never in large quantities. Near the sea-coast, sand and broken sea-shells were used in making the cement, but in inland places a mixture of gravel and earth. It seems originally to have been poured in a liquid state upon the walls, and allowed to filter through.

Roofs.—The roofs of most of the ancient Irish churches have long disappeared; but several of stone still remain. The pitch of these is exceedingly high, and they are constructed upon the barrel-vault principle. Examples of this kind occur in St. Columba's House at Kells, in Cormac's Chapel at Cashel, in St. Kevin's House at Glendalough, and St. Flannan's at Killaloe.

Belfries.—The *Cloictheach*, or Round Tower, appears to have been the most usual belfry. The ancient structure at Glendalough, called St. Kevin's 'Kitchen,' supports upon its western gable a small tower which appears to have answered this purpose. Bell-turrets, properly speaking, were not common before the thirteenth century.

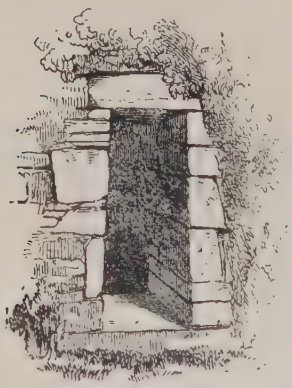
Such are the more usual and prominent characteristics of the early Irish churches. It should be observed that the doorway, with few exceptions, is invariably found to occupy a position in the centre of the west end. The windows in chancelled churches are generally five in number; one in the east gable, and one in each of the side walls of the nave and choir.

We shall now refer more specifically to some examples of early churches whose characteristic features come within those here classified.

Chancel Arch of the Old Church of Killiney, Co. Dublin.

Killiney Church.—The Church of Killiney, situated near the village of the same name, at a distance of about nine miles from Dublin, will be found particularly interesting to the student of Irish church architecture. The length of the interior is 35 feet; the nave measures but 12 feet 8 inches, and the

chancel 9 feet 6 inches in breadth. The church originally consisted of a simple nave and choir, lighted in the usual manner, and connected by a semicircular arch; but, at a period long subsequent to its original foundation, an addition, the architecture of which it will be well to compare with that of the more ancient building, has been made on the northern side. The original doorway, which, as usual, is placed in the centre



Doorway in Killiney Church, Co. Dublin.

Pointed Doorway in Killiney Church.

of the west gable, is remarkable from having a cross sculptured on the under part of its lintel. It measures in height 6 feet and 1 inch; in breadth at the top 2 feet; and at the bottom 2 feet 4 inches. The next feature to be noticed is the choir arch. This, which may be looked upon as a most characteristic example of its class, measures in breadth, where the arch begins to spring, 4 feet 7 inches, and at the base 4 feet 10½ inches; its height is only 6½ feet. The chancel windows

display the inclined sides so indicative of antiquity when found in Irish ecclesiastical remains; but, with the exception of that facing the east, they are in a state of great dilapidation. The east window is square-headed both within and without, and exhibits the usual splay. The comparatively modern addition on the north side of the nave, which appears to have been erected as a kind of aisle, is connected with the original church by several openings broken through the north side wall. It will be well to compare its architectural features with those of the older structure. The Pointed doorway offers a striking contrast to that in the west gable; and its east window is equally different from that in the ancient chancel, being larger, and chamfered upon the exterior. The fact of a semicircular arch-head being cut out of a single stone is of itself no proof of high antiquity, as it occurs in many comparatively late structures in Ireland; and in England there is to be seen in the Perpendicular church of Kirkthorpe, near Wakefield, a door-head that exhibits this mode of construction.

Kilternan Church.—The Church of Kilternan, situated near the little village of Golden Ball, about six miles from Dublin, on the Enniskerry road, presents several features of considerable interest. The south side-wall and the west gable are original, and of great antiquity. The latter contains a square-headed doorway, now stopped up with masonry; and to supply its place, a Pointed entrance has been inserted in the south side-wall. This alteration was made probably at the time

of the re-erection of the east end, the style of which indicates a period not earlier than the close of the thirteenth century, about which time the custom of placing the doorway in the west end appears to have ceased. There are several other churches in the immediate neighbourhood of Dublin which contain very primitive features; but they have been altered and remodelled at various times, and are, upon the whole, characteristic of later periods. Some of these we shall notice when describing the Early Pointed style, as found in Irish churches.

St. Mac Dara's Church.

The Church of St. Mac Dara.—The almost barren island containing the church dedicated to this saint lies off the coast of Connemara, due south of Roundstone Bay. The church is one of the most remarkable examples of the small stone-roofed churches now

remaining. It measures 14 feet 8 inches by 11 feet 3 inches internally; and the walls are 2 feet 8 inches thick; the side-walls project about one foot beyond the gables, into which they are not bonded. It is lit by a round-headed and deeply-splayed window in the east wall, and by a rectangular one in the south wall. It is built of massive masonry, some of the blocks measuring from 4½ to 5 feet long, and several feet wide. It had a high-pitched stone roof resting upon the side-walls, portions of which still remain. The walls of several circular clochauns, now much defaced, lie north of the church near the shore. The island is still a great place of pilgrimage, and passing boats have long been accustomed to lower their sails three times in honour of the saint.

Glendalough.—In the lone and singularly picturesque valley of Glendalough (Co. Wicklow), surrounded by high, gloomy mountains, upon which clouds almost continually rest, a celebrated monastic establishment, round which a small city subsequently rose, was founded in the early part of the sixth century by St. Kevin. The ruins of many ecclesiastical structures yet remain; and 'the long continuous shadow of the lofty and slender Round Tower moves slowly from morn till eve over wasted churches, crumbling oratories, shattered crosses, scathed yew-trees, and tombs—now undistinguishable—of bishops, abbots, and anchorites.'

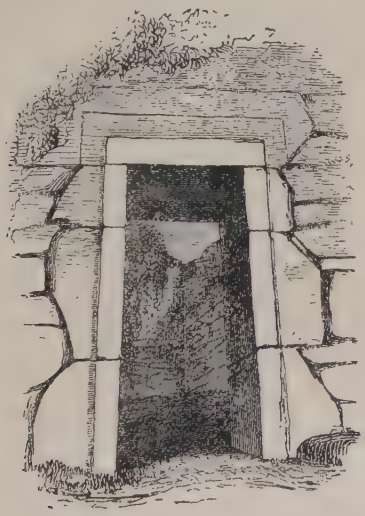
St. Kevin was of the Royal House of Leinster, and died at a great age in 618. We are told in a 'Life' of

him that 'on the northern shore of the lake his dwelling was a hollow tree; on the southern he dwelt in a very narrow cave, to which there was no access except by a boat, for a perpendicular rock of great height overhangs it from above.' He attracted numbers of disciples to the place, and erected a monastery. This was repeatedly devastated by fire and sword in the eleventh and twelfth centuries, St. Kevin's House being consumed in 1163, and the city is described as having lain waste for forty years, and as being a veritable den of robbers, 'spelunca latronum.' It suffered at the hands of Dermot Mac Morrough, and was destroyed again in 1398.

That several of the existing churches formed part of the original foundation, their style of architecture sufficiently indicates. A cashel, or wall, appears usually to have enclosed most of the ancient Irish monastic establishments. That such a work at one time existed at Glendalough is certain, though scarcely a vestige of it at present remains above ground. One of the gateways, however, stood until Petrie's time, which he compares to the Roman-built Newport Gate at Lincoln; and his prophecy, that for want of care this monument, unique of its kind, would soon cease to exist, was shortly after partially fulfilled, upon the fall of the principal arch. The stones, however, have been re-set, and the work possesses much of its pristine appearance. It is 11 feet high, 9½ feet wide, and 16 feet deep; it has external and internal arches, between which rose the tower.

The Church of Our Lady (a modern name) is believed

to have been the first erected in this part of the valley by St. Kevin, 'qui ibi duxit vitam eremiticam,' and here he was buried. It consists of a nave 32 feet by 20½ feet, and a chancel 21 feet 4 inches by 19½ feet; but the arch has fallen. The doorway is perhaps the finest of the kind remaining, and exhibits in a striking degree that early Greek form which is so very commonly found in the doorways of the most ancient churches, of the



Doorway of the Church of our Lady, Glendalough.

round towers, and, though more rudely developed, in the cahers of the pagan era. It is 5 feet 10 inches high, 2 feet 8 inches wide at the top, and 3 feet at the bottom, being formed of seven stones of the thickness of the wall; the lintel, 5 feet 1 inch long, has a cross on its soffit somewhat similar to that of Killiney.

The Cathedral, standing within the enclosure, is considered to have been erected about the commencement of the seventh century, and appears, from its name, dimensions, and position, to have been originally the *Domhnach-mór*, or *Daimhliag-mór*, or chief church of the place. Notwithstanding its present state of dilapidation, there are in Ireland few structures of the same antiquity and extent that retain so many original features. The nave is 48 feet 6 inches by 30 feet; the chancel—25 feet by 21½ feet—appears to be of later date; the fallen arch has been restored to about eight courses above the piers. It is entered by a square-headed doorway, 6 feet 9 inches high, in which the weight upon the lintel is taken off by a semicircular arch. The masonry of the chancel is much less massive than that in the body of the church, and, moreover, is not bonded into the nave, thus showing its more modern erection. The east window was remarkable for its ornamental character, possessing a chevron moulding and a sculptured frieze running on either side from the spring of the arch.

The most interesting building in the enclosure is St. Kevin's House or 'Kitchen.' This has been to all intents and purposes changed into a church by the subsequent addition of a chancel and bell-turret, neither of which, in all probability, belonged to the original building; the chancel has been destroyed, but it will be seen on close examination that the walls of the adjoining sacristy are not bonded into those of the main building. 'It will be observed also that the chancel arch is of subsequent formation; for its semicircular

head is not formed on the principle of the arch, but by the cutting away of the horizontally laid stones of the original wall, in which operation a portion of the original window placed in this wall was destroyed, and the remaining portion of the aperture built up with solid masonry.'* The arch is 9 feet high by 5 feet wide. St. Kevin's House was thus originally an oblong building, 23 feet by 15 feet, with a very high-pitched stone roof, a barrel-vaulted room below, and a small croft between. It was entered by a door on the west side, which is now blocked up; it was square-headed, with the weight taken off the lintel by a semicircular arch, as in the cathedral door. Above the west gable is the addition of a small round-towered belfry, rising 9 feet from the roof. The sacristy was apparently similar to the chancel, being stone-roofed and ornamented with a rude string-course similar to that of the main building. It is considered by Petrie that these additions took place after the death of St. Kevin, whose name was held in such reverence that naturally it was sought to convert his residence into a church.

Trinity Church, perhaps in a greater degree than any coeval structure in Leinster, retains the original character of its various parts. It is near the entrance to the glen, and possesses a fine specimen of the square-headed door-way, and a choir arch, of its class one of the finest in Ireland. The east window of the chancel has a semicircular head, and the arch is cut out of a single stone; there is also a triangular-headed window in the south wall; in fact, the building has almost

* *Ecclesiastical Architecture*, George Petrie, p. 432.

every characteristic of the more ancient style of church architecture in Ireland, and each perfect in its way. There was formerly a round tower belfry attached to the western end, which fell in 1818.

St. Saviour's Monastery, on the opposite side of the river, near Derrybawn, is a singularly interesting ruin. It consists of a nave and chancel, measuring together

Chancel Arch, Trinity Church, Glendalough.

about 60 feet by 30 feet. The fine chancel arch, which had fallen, has been restored; it is of three orders resting upon clustered piers; the capitals are highly ornamented with fantastic sculptured heads of animals, and the arch displays a variety of zigzag or chevron moulding, showing work many centuries later than the most primitive of the buildings.

Reefert Church, on the south bank of the upper lake,

was the first founded by St. Kevin before he moved to the lower part of the valley. It consists of a nave and chancel, the combined length being 43 feet by 26 feet. The dividing arch is the full width of the chancel. The doorway is of chiselled blocks of granite; it is 5 feet 9 inches high and square-headed, with inclined jambs. The enclosure in which it stands has been strangely interfered with by the Board of Works, and laid out in a most artificial manner. It was the burial-place of the O'Tooles; and an ancient inscribed tombstone, popularly said to belong to the famous king of the tribe, has disappeared, having been broken up and sold, it is said, by guides in the middle of the last century.

There are other remains of churches—the Priest's House, St. Kieran's, and Temple na Skellig. There are numerous crosses; and the round tower is one of the largest and most perfectly preserved now remaining. Much attention is usually paid to the singular chamber called 'St. Kevin's Bed.' That it is altogether a work of art cannot be satisfactorily demonstrated. Though, to a certain degree, its artificial character is distinctly marked, it is quite possible that a natural cavity, the sides of which have been roughly hewn and squared, may have existed previously. The Bed, which is situated in an almost overhanging rock, at some height above the lake, is said to have been the residence of St. Kevin at some period when pursuing that course of study and contemplation for which his name, even to this day, is revered; and the celebrated St. Laurence O'Toole is said to have spent much of

his time in prayer and heavenly contemplation in this cavern.

The early monastic establishments had in their buildings none of the features found in the monasteries of the great Orders of a later period. No remains are found at Glendalough, or elsewhere in Ireland, of great houses, like those of the twelfth and following centuries, for the accommodation of large numbers. The abbot and other members of the community had each his own cell, with such buildings as were needed for guest-house, kitchen, and the like. These were, no doubt, of a primitive type and perishable material, as all traces of such structures have long since disappeared. A marked peculiarity of the churches in these places is their small size. It seems that as accommodation was required, additional small churches were built, and hence the many spots in Ireland noted for their collection of such buildings.

A few structures known as 'Houses,' of which St. Kevin's, already described, is the best-known example, are stone-roofed and vaulted, and seem to have combined the purpose of an ordinary dwelling-house with that of an oratory, and are thought to have been the residence of the abbot. The church on Friar's Island, Killaloe, is another and early example, showing the transitional stage from the false to the true arch. The chancel measures 10½ feet by 6½ internally, and the walls are 3 feet thick; a very low chamber exists beneath the stone roof. The principle introduced in the barrel vaulting of these buildings was to lighten the weight of the heavy stone roof. A space was thus

formed between it and the upper floor of the vaulting, which was turned to domestic use the more readily when divided by walls. The stone roofs possess no principle of the arch; they are built of rectangular slabs of dressed stones, well fitted for weather purposes, the top being finished with angular coping-stones.

St. Columba's House, at Kells, Co. Meath.

St. Columba's House.—Another example of this class, less rude than that of Friar's Island, occurs in the structure called St. Columba's 'House,' at Kells, Co. Meath. It has a barrel-vaulted roof, which is completely devoid of ornament, and springs from the side-walls separating the body of the building from a small croft, to which access was originally gained by a quadrangular opening,

about 19 inches in breadth, adjoining the west gable. Two walls, crossing and resting upon this arch, and pierced each with a small semicircular-headed doorway, together with the gables, support a roof of stone; the total height is 38 feet. The lower apartment was lighted by two windows, one in the centre of the east end, the other in the south side-wall. Both windows are small, and splay inwardly; that to the east is formed with a semicircular arch, while the other presents a triangular head. The ancient doorway, which

Window in St. Columba's House.
(From the interior.)

was 8 feet from the ground, in the west end, has been almost obliterated; the doorway in the south wall is a later addition. The *Annals of Clonmacnoise* mention, under date 804, that 'a new church was founded in Kells in honour of St. Columb Kill.' This probably points to the early part of the ninth century for the erection of these structures. Kells has a remarkably perfect round tower, several crosses, and has given its name to 'the most elaborately executed monument of early Christian art in existence'—the *Book of Kells.*

St. Flannan's Church.—This building, which is similar to the 'Houses' of St. Kevin and St. Columba, is the best built of the class, and adjoins the Cathedral of Killaloe. The nave is 29 feet long, 18 feet broad, and the walls are about 3½ feet thick; the chancel is in ruins, and appears to have been about 12 feet broad. The arch is plain with inclined jambs, and is 8½ feet in height. The nave is barrel-vaulted, and the croft lit by a semicircular-headed window in the west gable, and a triangular-headed one in the east. It is entered by a remarkable doorway in the west gable; the jambs are inclined, and support a series of recessed semicircular arches. The church is attributed to Brian Boru, but Petrie considered it much earlier. The doorway cannot be earlier than the tenth century; and the probability is that Brian re-edified the building, as he did the Church of Iniscaltra.

CHAPTER XI.

EARLY DECORATED CHURCHES.

DEVELOPMENT OF STYLE—CHURCH OF INISCALTRA—KILLESHIN—RAHAN—KING CORMAC'S CHAPEL AT CASHEL—FRESHFORD.

CHURCHES like those described in the last chapter, we have every reason to believe, were constructed before the Anglo-Norman invasion of this kingdom. How long the style continued is a matter of uncertainty. We find in the process of architectural development that the horizontal lintel appears gradually to have given place to the semicircular arch-head. The high-pitched roof becomes flattened, the walls lose much of their massive stone-work character and are generally higher, and cement appears to have been used. The windows exhibit a slight recess, or a chamfer, upon the exterior, and are of greater size; a small bead-moulding is occasionally found extending round an arch upon the interior. As the style advances, the sides of the doorways, though still inclined, become cut into a series of recesses, the angles of which are slightly rounded off. The addition of a slight moulding—at first a mere incision—upon the piers, would seem to have suggested

pillars. Chevron and other decorations, which in England are considered to indicate the Norman period, are commonly found; but they are generally simple lines cut upon the face and soffit of the arch. Pediments appear; and the various mouldings and other details of doorways and windows become rich and striking, and, in some respects, bear considerable analogy to true Norman work. The capitals frequently represent human heads, the hair of which is interlaced with snake-like animals. To this style of architecture, which has its own distinctive characteristics, the term 'Hiberno- or Irish-Romanesque' has been applied. The churches, as a rule, are small in size and simple in plan, after the manner of the earlier buildings. Horizontal forms, so strong a feature in the old, are combined with the rounded forms in the new. The decoration contains elements distinctly belonging to that ornamentation which is so striking a feature of the metal and manuscript work of the period. This transition can be traced to the beginning of the eleventh century, but was not fully developed for a century later, and would lead, as Petrie says, 'with every appearance of probability, to the conclusion that such architecture existed here previously even to the Norman Conquest of England.'*

Iniscaltra.—The principal church in the monastic establishment founded by St. Caimin in the seventh century on Iniscaltra, in Lough Derg, was re-edified by Brian Boru (died 1014), the buildings having suffered

* *Eccles. Arch.*, p. 284.

the usual fate of destruction by the Danes. The chancel of the church is the work of that king, and the nave also was restored. The west doorway—a fine work though now much decayed—consisted of three concentric semicircular arches, ornamented with chevron mouldings in hollow lines. 'The piers of these arches were rectangular, but rounded at their angles, so as to form slender semi-cylindrical shafts, with angular mouldings on each side, and having in capitals well-shaped human faces carved in low relief.' The chancel-arch consists of three receding and concentric plain arches, the piers being rounded into semi-columns with carved capitals.

Killeshin.—The church of Killeshin, in the Queen's County, lying at a distance of about two miles from Carlow, appears to have been one of the most beautiful structures of this class ever erected in Ireland. Its doorway, until very lately, retained, in a remarkable degree, the original sharpness of its sculpture. We were informed that, many years ago, a resident in the neighbourhood used to take pleasure in destroying, as far as lay in his power, the interesting capitals here represented; and that to his labours, and not to the effects of time, may be attributed the almost total obliteration of an Irish inscription which formerly extended round the abacus, and of which but few letters at present remain.

The church of Killeshin is, perhaps, late in the style of the period. The arches, of which there are four concentric, forming the doorway, display a great variety of

ornamental detail, consisting of chevron work, interlaced pattern, heads, &c. A pediment surmounts the external arch, and a window in the south side-wall is canopied by a broad band, ascending and converging in straight lines.

Capitals at Killeshin.

A window of similar construction appears in the round tower of Timahoe, and ornamentation similar in style to the above appears on its fine doorway.

Capitals at Killeshin.

Rahan.—One of the most remarkable remaining examples of this style of church occurs at Rahan, near

Tullamore, in the King's County.* The monastery was originally founded by St. Carthach, afterwards bishop of Lismore, at the beginning of the sixth century. A triple chancel arch, and a circular window, highly ornamented, are the chief remaining details of the original building. The chancel is stone-roofed; and the chamber above was lit by the circular window. The piers of the arch are rounded off into semi-columns, with capitals of very singular character, quite distinct from Norman work. The bases of the semi-columns are globular in form; and the blocks are sculptured in each compartment out of a single stone. The capitals or imposts are ornamented upon their angles with human heads, the hair of which is carried back and represented by shallow lines cut upon the face of the stone in a very fanciful manner. The window, which is 7 feet 6 inches in diameter, is composed of stones unequal in size, and displaying chevron ornaments in very low relief.

Window at Killeshin.

The Rock of Cashel.—Grouped upon this celebrated Rock, which rises precipitously from the plain to a height of about 300 feet, is one of the most interesting collections of buildings in the British Isles. Cashel was associated with the early kings of Munster; and we are told a church was founded here by St. Declan in the time of St. Patrick. The Annalists give the con-

* This is described in Petrie's *Eccles. Arch.*, pp. 242–6.

secration of the chapel of Cormac Mac Carthy, king of Munster, under the year 1134, thirty-seven years before the date of the Anglo-Norman invasion. The buildings, in addition, consist of the Cathedral, founded by Donagh O'Brien, king of Thomond, about 1152, which suffered many vicissitudes, and the Round Tower. A

The Rock of Cashel.

portion was constructed for defensive purposes, constituting what is called the Archbishop's Castle. There is a much-worn cross with an effigy of St. Patrick; and the ruins of Hore Abbey, founded for the Cistercians in 1272, stand at the foot of the Rock.

Cormac's Chapel is, with the exception of the round tower, the most ancient structure of the group. It is not parallel with the Cathedral, and

therefore differs in orientation. It is roofed with stone, and in its capitals, arches, and other features and details, is distinctly Irish-Romanesque in style.

The plan consists of a nave and chancel, with a square tower on either side, at their junction. The south tower, about 55 feet high, is ornamented ex-

Interior view of King Cormac's Chapel.

ternally with six projecting bands, three of which are continued along the side-walls of the structure, and it is finished at the top by a plain parapet, the masonry of which is different from that of the other portions, and evidently of a later period. The north tower, 50 feet high, remains in its original state, and is covered with a pyramidal cap of stone.

An almost endless variety of Irish-Romanesque decorations appear upon the arches, and other features of the building, both within and without. Both nave and chancel are roofed with a semicircular arch, resting upon square ribs, which spring from a series of massive semi-columns, set at equal distances against the walls. The bases of these semi-columns are on a level with the capitals of the chancel-arch, the abacus of which is continued as a string course round the interior of the building. The chancel-arch causes a singular effect from its not being quite in the centre between the main walls. There is no east window; but an altar recess, arcaded, projects externally, thus forming a third division to the building.

The walls of both nave and chancel beneath the string course are ornamented with a row of semicircular arches, slightly recessed, and enriched with chevron, billet, and other ornaments and mouldings. Those of the nave spring from square imposts resting upon piers; while those in the chancel have pillars and well-formed capitals. Other churches of about the same period are found with similar arcades, such as Kilmalkedar and Ardmore. There are small crofts to which access is gained by a spiral stair in the south tower, between the vaulting over both nave and chancel and the external roof. The chamber over the chancel is 6½ feet lower than that over the nave; these are connected by a doorway and flight of steps, and are lighted by windows; at the west end is a fireplace. These little apartments were, no doubt, used as dormitories by the ecclesiastics. A somewhat similar

croft in the church of St. Doulough's, near Dublin, is furnished with a fire-place—a fact which clearly demonstrates that they were applied to the purpose of habitation.

The doorways of Cormac's chapel are three in number—one in the centre of the west end, and one in each of the side-walls of the nave, within a few feet of the west gable. The north and south doorways are original, and are headed with a carved tympanum or lintel between the aperture and the decorated semicircular arches above. They are both exceedingly rich in sculpture; but the north doorway appears to have been the chief entrance, as it is considerably larger and more highly decorated than the other. It is surmounted by a canopy; and the tympanum is sculptured with a very singular device, representing a combat between a centaur, armed with bow and arrow, and a huge animal, probably intended for a lion. The head of the centaur is covered by a conical helmet with a nasal, and he is shooting a barbed arrow into the breast of the lion. A small animal beneath the feet of the latter appears to have been slain in the encounter. The west doorway, which is of a later date, is not canopied, and its tympanum is sculptured with a single animal, not unlike the lion upon the other.

Freshford.—The doorway at the church of St. Lactan, Freshford, Co. Kilkenny, is one of the most beautiful now existing in Ireland; it is 'almost classical,' says Brash, 'in the symmetry and chasteness of its details.' The original church was erected in the seventh century; and,

in Petrie's opinion, it was rebuilt about the close of the eleventh or the beginning of the twelfth century. The doorway consists of a series of recessed arches richly decorated, in which the bead and chevron mouldings are conspicuous. On each side of the spring of the external arch is a piece of sculpture, much worn; one is that of a

Doorway at Freshford, Co. Kilkenny.

man on horseback, and the other that of two standing figures; above the imposts are grotesque lions' heads. Two inscriptions are over the inner arch; that on the under band runs thus: 'A prayer for Niam, daughter of Corc, and for Mathgamain O'Chiarmeic, by whom was made this church.' On the upper band is—'A prayer for

Gille Mocholmoc O'Cencucain who made it.' The latter was, no doubt, the architect, and the former the patron at whose expense the work was carried out.

Other remarkable examples of Irish-Romanesque architecture are Aghadoe (*circa* 1158), Tuam (1161), Clonfert (1166), and Devorgilla's Church, Clonmacnoise (1168). The chancel-arch in Tuam Cathedral, and the doorway of Clonfert, are among the finest of their kind now remaining of the period.

CHAPTER XII.

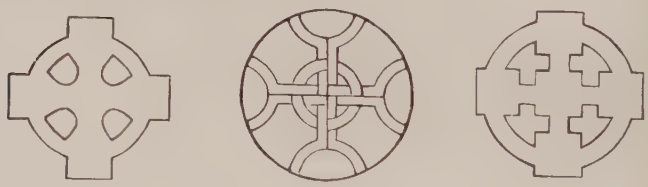
CROSSES.

VARIETIES OF EARLY CROSSES — EXAMPLES AT CLONMACNOISE — HIGH CROSSES—THE HIGH CROSSES AT MONASTERBOICE—THEIR SCULPTURE AND DECORATIONS—SEPULCHRAL SLABS—EARLY GRAVES.

EARLY Christian graves were usually marked by stones nowise differing from the pagan pillar-stone, except that in some instances they were sculptured with a cross. These were of the simplest form and rudely cut, and consisted of an elementary line cross, or one slightly developed and within a circle. Plain undressed slabs or rude stones were generally adopted in the first instance, the only use of the cutter's instrument being on the incised work. Many of the stones of this class are found in old Christian graveyards, or within the area of early monastic establishments.

The richest collection of them is to be seen at Clonmacnoise, numbering 188; and inscribed slabs to the number of 74 have been lost from this one spot alone. Clonmacnoise was founded by St. Kieran in the middle of the sixth century; and, in time, it was, as Ware says, 'above all others famous for the sepulchres of nobility and bishops.' Petrie, in his work on *Christian Inscriptions*, shows, by means of the recorded

names and 'Annals,' that for over 600 years, beginning with 628 A.D., this class of monument was used for sepulchral purposes. The inscribed crosses are of great variety—Celtic, Latin, and Greek—many being very chaste with key-end and other patterns. The most typical form of Celtic cross is that formed from the plain Latin type enclosed in a ring that connects the arms, and leaves varied spaces between it and the corners of their intersection.



Early Crosses on sepulchral slabs at Clonmacnoise.

This style of memorial appears to have been succeeded by a rudely-formed cross, the arms of which are little more than indicated, and which is usually fixed in a socket, cut in a large flat stone. Such crosses rarely exhibit any kind of ornament; but occasionally, even in very rude examples, the upper part of the shaft is hewn into the Celtic form already described, the portions of the stone by which the circle is indicated being frequently perforated or slightly recessed. A fine plain cross of this style may be seen on the road adjoining the graveyard of Tully, Co. Dublin; and there is an early-decorated example near the church of Finglas, in the same county.

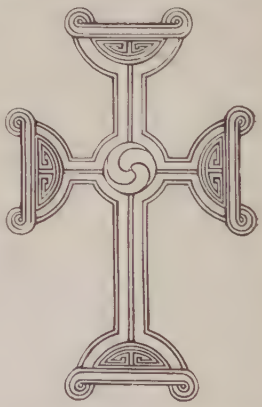
In the process of development of Christian art and

architecture we find an advance in the work on the memorials of the dead. The design becomes more complicated, ornamentation more profuse; and there is a change to the minuscule form of the alphabet in the inscriptions. From the rude pillar-stone, marked with the symbol of our Faith enclosed within a circle, the emblem of eternity, the finely-proportioned and elaborately-sculptured crosses of a later period were developed. In the latter, the circle, instead of being simply cut upon the face of the stone, is represented by a ring, binding, as it were, the shaft, arms, and upper portion of the cross together. The top of the shaft is usually in the form of a roof with sloping sides, resembling the shrines of the period for holding the relics of saints. The spaces between the binding ring and the intersecting arms are pierced; and these are finely relieved by rounded bands across the corners of intersection, or on the inner surface of the ring. The whole sculpture thus forms the cross, and is in striking contrast to the Scotch type of memorial, which has the cross carved in relief upon an upright slab. The inscribed crosses were sepulchral, and principally used in covering the grave; but the free standing crosses were erected either to the memory of some famous ecclesiastic or king, or dedicatory, as in the case of the SS. Patrick and Columba Cross at Kells, or terminal, marking the bounds of a sanctuary. Of these 'high'

Cross on slab, Clonmacnoise.

crosses forty-five still remain, many of which are in a fair state of preservation. The striking feature of these crosses is the ornamental and pictorial work displayed in the carving. As in the manuscript and metal work, and in the general ornamentation of the churches, this is of a most elaborate character. There is a profusion of spiral pattern, Celtic tracery, and zoomorphic design found on these crosses. The whole body of Christian doctrine finds its expression in their sculpture, intended, no doubt, by means of symbolical representation, to be great object-lessons in the way of faith to every beholder. The central idea on the face of the cross is usually the Crucifixion, and on the back the Resurrection, or Christ in Glory; the remaining spaces in the panels and on the sides being filled with various sacred and other subjects. These highly-sculptured crosses appear to have been very generally erected between the tenth and thirteenth centuries; and there are few examples of a later date remaining, if we except a small number bearing inscriptions in Latin or English, which generally belong to the close of the sixteenth or to the seventeenth

Cross on slab, Clonmacnoise.



Cross on slab, Clonmacnoise.

century, and which can hardly be looked upon as either Irish or ancient.

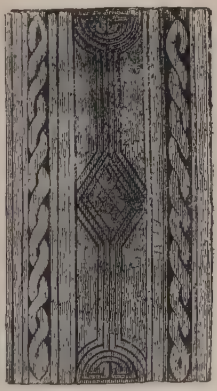
Crosses at Monasterboice.—The beautiful remains of this class at Monasterboice, near Drogheda, are the finest now remaining in Ireland, though nearly equalled by some of the many others scattered over the whole island. In these crosses alone there is evidence sufficient to satisfy the most sceptical of the skill which the Irish had attained, in more of the arts than one, during the earlier ages of the Church. They may be regarded, not only as memorials of the piety and munificence of the founders, but also as the finest works of sculptured art of their period now existing.

Two of the crosses at Monasterboice remain in their ancient position, and are well preserved, though one of them, in particular, bears distinct evidence of a systematic attempt having been made to destroy it. A third has been broken to pieces, the people say by Cromwell; but its head and part of the shaft remaining uninjured, the fragment has been re-set in its ancient socket. The Great Cross, the largest of the two more perfect crosses, measures 27 feet in height, and is composed of three stones. A portion of the base is buried in the soil. The shaft at its junction with the base is 2 feet in breadth, and 1 foot 3 inches in thickness. It is divided upon the western side by fillets into seven compartments, each of which contains two or more figures executed with bold effect, but much worn by the rain and wind of nearly nine centuries. The sculpture of the first compartment, beginning at the base, has

Great Cross of Monasterboice.

been destroyed by those who attempted to throw down the monument. The second contains four figures, of which one, apparently the most important, is presenting a book to another, who receives it with both hands, while a large bird seems resting upon his head. The other figures in this compartment represent females, one of whom holds a child in her arms.

Compartments 3, 4, 5, and 6 contain three figures each, evidently the Apostles; and each figure is represented as holding a book. The seventh division, which runs into the circle forming the head of the cross, is occupied by two figures; and immediately above them is a representation of our Saviour crucified, with the usual figures of a soldier upon each side, one piercing His body with a spear, and the other offering a sponge. To the right and to the left of the figure of our Saviour other sculptures appear. The figures upon the right arm of the cross are represented apparently in the act of adoration. The action of those upon the left is obscure; and, in consequence of the greater exposure of the upper portion of the stone to the weather, the sculpture which it bears is much worn, and almost effaced.



Ornament beneath Arm of the Great Cross, Monasterboice.

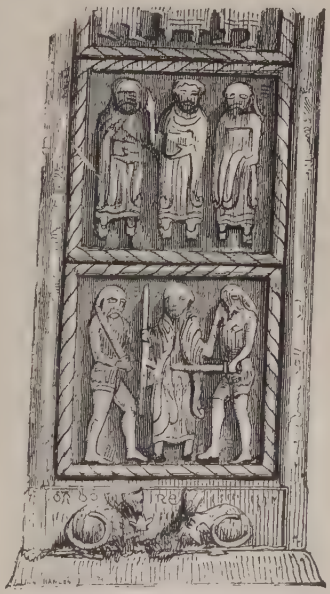
The sides of the shaft are ornamented with figures and scroll-work, placed alternately in compartments, one above the other. Of the circle by which the arms

and stem are connected, the external edges are enriched; and as an example, the compartment beneath the left arm is here engraved. The eastern side is also divided into compartments occupied by sculptures, which may refer to Scripture history.

Cross of Muiredach, sometimes called the Smaller Cross, Monasterboice.

The smaller cross is the finest example of this class of Celtic sculpture now remaining. The figures and ornaments with which its various sides are enriched, appear to have been executed with an unusual degree of care and of artistic skill. It has suffered but little from the effects of time. The sacrilegious hands which attempted the ruin of the others appear to have spared this; and it stands

almost as perfect as when, nearly a thousand years ago, this unrivalled work left the sculptor's hands. An inscription in Irish upon the lower part of the west face of the shaft desires 'A prayer for Muiredach, by whom was made this cross'; but as Petrie, by whom the inscription has been published, remarks, there were two of the name mentioned in Irish 'Annals' as having been connected with Monasterboice—one an abbot, who died in the year 844, and the other in the year 924—'so that it must be a matter of some uncertainty to which of these the erection of the cross should be ascribed.' There is reason, however, to assign it to the latter, 'as he was a man of greater distinction, and probably wealth, than the former, and therefore more likely to have been the erector of the crosses.' Its total height is exactly 15 feet, and it is 6 feet in breadth at the arms. The shaft, which at the base measures in breadth 2½ feet, and in thickness 1 foot 9 inches, diminishes slightly in its ascent, and is divided upon its various sides by twisted bands into compartments, each of which contains either sculptured figures



Portion of the Sculpture on the Cross of Muiredach.

or tracery of very intricate design, or animals, probably symbolical.

The figures and other carvings retain much of their original form and beauty of execution. The former are of great interest, as affording an excellent idea of the dress, both ecclesiastical and military, of the Irish during the ninth and tenth centuries. As an example, the two lower compartments upon the west side are here given; in the first are three ecclesiastics holding books, the central one with raised hand in the act of blessing. The lower panel is supposed to represent Christ being led away by armed soldiers. Within the circular head of the cross, upon its eastern face, He is represented sitting in judgment; in His right hand is a cross, indicating His Passion, and in His left a sceptre, signifying His victory over death and the grave. A choir of angels occupy the arm to the right of the figure. Several are represented with musical instruments, among which the ancient Irish harp may be seen; it is small and triangular, and rests upon the knees of David, who is represented sitting; the Holy Spirit, in the form of a dove, rests upon the harp, inspiring the Psalmist. The space to the left of the Saviour is crowded with figures, several of which are in an attitude of despair. They are the damned; and a fiend armed with a trident is driving them from before the throne. In the compartment immediately beneath is the Archangel Michael, the guardian of souls, weighing in a pair of huge scales a soul, the balance seeming to preponderate in his favour. One who appears to have been weighed, and found wanting, is lying beneath

the scales in an attitude of terror. The next compartment beneath represents, apparently, the adoration of the Wise Men. The star above the head of the infant Christ is distinctly marked. The third compartment contains several figures, but what they symbolise is not known. The signification of the sculpture of the next following compartment is also very obscure: a figure seated upon a throne or chair is blowing a horn, and soldiers with conical helmets, armed with short broad-bladed swords, and with small circular shields, appear crowding in. The fifth and lowest division illustrates the Temptation and the Expulsion of Adam and Eve. The head of the cross upon this side is sculptured with a Crucifixion, very similar to that upon the head of the larger cross; but the execution is better. Its northern arm, to the left of the Crucifixion, underneath bears the representation of the *Dextera Dei*, or Hand Symbol, used in early Christian art to represent the First Person of the Trinity. It is also to be seen on the Cross of Flann, at Clonmacnoise, where it is on the right of the Crucifixion; in both cases it is surrounded by a nimbus. Of the broken cross, a boss placed within its circle with spiral ornamentation is here engraved. It is otherwise plain.

Boss of the third Cross, Monasterboice.

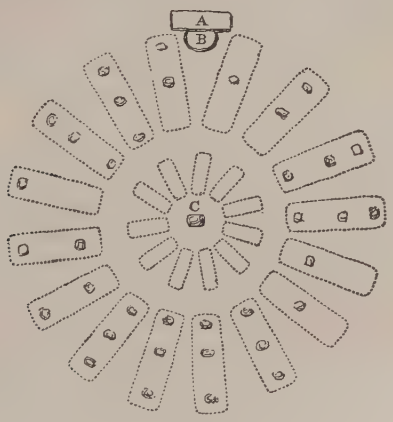
An early monumental stone remains in the cemetery,

a few yards to the north of the less ancient church. The inscription is in the Irish language and character, and reads in English, 'A prayer for Ruarchan.' A simple flagstone, inscribed with a name, and sculptured with the sacred symbol of Christianity, such as the early Christians were accustomed to place over the grave of an eminent man, forms a striking contrast to the tablets which too often disfigure the walls of our cathedral and parish churches. Many remains of this class lie scattered among the ancient and often-neglected graveyards of Ireland; but they are every day becoming more rare, as the country stone-cutters, by whom they are regarded with but slight veneration, frequently form out of their materials modern tombstones, defacing the ancient inscriptions. A characteristic example of a portion of an inscribed slab is here given; it is from Iniscaltra, an island in Lough Derg, for many centuries a celebrated burial-ground.

Inscribed Tombstone, Iniscaltra.

In several cemeteries found in connection with the earlier monastic establishments of Ireland, graves frequently occur, formed of flat stones placed edgeways in an oblong figure and covered with large flags, after the pagan fashion. Were it not that in several instances the stones at either end of the enclosure have

been sculptured with a cross, they might be supposed to indicate the site of a pagan cemetery, which the early Christians, for obvious reasons, had hallowed by the erection of a *cill*. The direction of the grave is generally east and west; but in the cemetery adjoining the very early church at Saint John's Point, in Co. Down, and at Kilnasaggart, the graves are arranged in the form of a circle, to the centre of which the feet of the dead converge.



Plan of Cemetery, Kilnasaggart, near Jonesborough, Co. Armagh.

The cemetery at Kilnasaggart consists, as the plan here shows, of two concentric circles of low flat graves radiating towards the centre, at which stands a small pillar-stone. The outer circle is 55 feet in diameter, and at the north edge is the well-known Pillar-stone. This originally contained an Ogam inscription, which was defaced, probably when converted to Christian

uses. It has a number of incised crosses, and an Irish inscription to St. Ternoe.*

A similar mode of interment, which occurs at Town-y-Chapel, near Holyhead, in Wales, is referred to in the *Archæological Journal*, vol. iii.; and it is worthy of remark that the place where the graves are found appears to have been the scene of a battle, fought about A.D. 450, in which many Irishmen were slain.

* *Journal*, Royal Society of Antiquaries, Ireland, 1856–7, p. 315.

CHAPTER XIII.

ROUND TOWERS.

OPINIONS FORMERLY CURRENT WITH REGARD TO THE ORIGIN AND USES OF THE ROUND TOWERS—THEIR CHARACTERISTICS — DOORWAYS, WINDOWS AND APERTURES—EXAMPLES AT CLONDALKIN, MONASTERBOICE, KILDARE, DEVENISH.

ROUND TOWERS of about 18 feet in external diameter, and varying in height from 60 to about 110 feet, are frequently found in connection with the earlier monastic establishments of Ireland. The question of their origin and uses long occupied much antiquarian attention. In the seventeenth and eighteenth centuries they had been regarded by archæologists as the work of the Danes; but towards the close of the latter century General Vallancey propounded various theories, which assumed them to be of Phœnician or Indo-Scythian origin, and to have contained the sacred fire from whence all the fires in the kingdom were annually rekindled. By those who affirmed their Christian origin they were successively declared to be anchorite towers in imitation of that of St. Simon Stylites, and penitential prisons, and thus theories were multiplied until they became almost as numerous as the towers themselves. Each succeeding writer, instead of elucidating, appeared to involve the subject in deeper

mystery than ever—a mystery that was proverbial until dispelled by George Petrie in his great work on *The Origin and Uses of the Round Towers of Ireland*, which was received, with good cause for the effusion, as 'the most learned, the most exact, and the most important ever published upon the antiquities of the ancient Irish nation.'

That the general conclusions embodied in this work were arrived at after a long and patient investigation, not only of the architectural peculiarities of the numerous round towers, but also of the ecclesiastical structures usually found in connection with them, is sufficiently shown by the many references to, and illustrations of, examples scattered over the whole country. But Petrie also, with the assistance of the best Celtic scholars in Ireland, sought in the 'Annals' and other Irish MSS. for references to such buildings as it was the custom of the early inhabitants to erect; and from these hitherto-neglected sources of information, much light was thrown upon the subject of ancient Irish ecclesiastical architecture. The following is a summary of Petrie's conclusions:—

1. That the Irish ecclesiastics had, from a very early period, in connection with their cathedral and abbey churches, campaniles or detached belfries, called in the Irish 'Annals' and other ancient authorities by the term *Cloictheach*, 'House of a bell.'

2. That no other building, either round or square, suited to the purpose of a belfry, has ever been found in connection with any church of an age anterior to the twelfth century, with the single exception of the square

belfry attached to a church on Inis Clothrann or Clorin, an island in Lough Ree, which seems to be of earlier date.

3. That they were designed to answer at least a twofold purpose—to serve as belfries, and as keeps or places of strength, in which the sacred utensils, books, relics, and other valuables were deposited, and into which the ecclesiastics to whom they belonged could retire for security in cases of sudden attack.

4. An examination of ancient Irish literature tends strongly to the conclusion that the people so generally recognised this use of the round towers as a primary one, that they very rarely applied to a tower erected for defence any other term but that of 'cloictheach' or belfry.

5. That they were probably also used, when occasion required, as beacons and watch-towers.

Petrie, while establishing their ecclesiastical character and origin, gave, however, too wide a margin to the date of their erection, viz., from the sixth century to the thirteenth. The investigations of the late Lord Dunraven in tracing such structures on the Continent narrowed their first erection down to the ninth century. He shows that they were founded on European examples, the most notable being those of Ravenna, where six of its round towers still stand. The round towers were due to Byzantine influences, and some writers trace their original source to the towers built in connection with early Syrian churches. Miss Stokes, following Lord Dunraven, assigns the Irish round towers to three

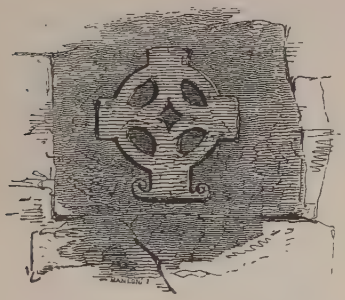
periods between 890 and 1238 A.D., and classifies them into four distinct groups, according to their style of masonry and doorways.

The Norse sea-rovers rendered ecclesiastical establishments most unsafe. The first period of their invasions extended from the end of the eighth century to the middle of the ninth century, and the land was ravaged from north to south with fire and sword. On the sea-coast and along the river valleys the country lay waste. On the banks of the Bann, the shores of Lough Neagh, by the Boyne, and broad expansions of the Shannon, and as far south as the distant Skellig Rock, few sacred establishments escaped plunder and desecration. To protect their churches, oratories, and sacred treasures, these towers were built by the monks, from which watch could be kept, and an easy retreat made to them as places of safety; their lines can still be traced along the shores of the waters where the fleets of the Danes are known to have appeared.

Doorway, Round Tower, Glendalough.

The usual features of the round towers may be thus summarised:

Doorways.—In form these are similar to the doorways we have described as characteristic of the early churches, but they are generally more highly ornamented, and appear to have been furnished with double doors. They are placed almost invariably at a considerable elevation above the ground. A flat projecting band, with a small bead-moulding at the angles, is the most usual decoration; but in some instances a human head, sculptured in bold relief, is found upon each side of the arch. A stone immediately above the doorway of Antrim tower exhibits a cross sculptured in *alto-relievo*; and at Donaghmore, in Co. Meath, a figure of the Crucifixion, in bold relief, occupies a similar position. This style of decoration may have been much more common than is

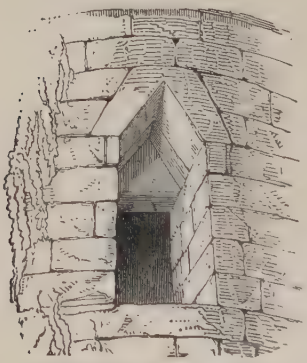


Cross over the Doorway of Antrim Tower.

Doorway, Donaghmore Tower, Co. Meath.

generally supposed, as, of the number of towers remaining in Ireland, the doorways of at least one-third have been destroyed. Concentric arches, with chevron and other mouldings, occur at Timahoe and at Kildare.

Windows and Apertures.—Generally speaking, these are similar in form to the windows in contemporary churches—with this difference, that they never splay, and that the arch-head in numerous examples differs in interior form from that of the exterior. The windows in the earliest towers are square-headed or triangular, and in the latest they are well formed, and of cut stone. The tower was divided into storeys, about 12 feet in height, the floors of which were supported by projections of the masonry or by brackets. Each storey, except the highest, was generally lighted by one small window; the highest has generally four of large size. A conical roof of stone completed the building. The tower usually rested on a low circular plinth; the walls varied in thickness, from 3 to 5 feet; the lowest storey had no aperture, and sometimes its space was filled by solid masonry. The earliest towers were built of rubble masonry; and the spaces between the stones were filled with spawls; little mortar was used in laying the courses, but grouting abundantly. In the latest towers fine ashlar



Window, Round Tower, Cashel.

masonry was used, like the Norman work of the twelfth century; a few have external string courses, as in the perfect tower at Ardmore, County Waterford. About seventy round towers still remain, thirteen of which are perfect, of which ten retain the original conical cap.

Clondalkin.—In the village of Clondalkin, at a distance of about six miles from Dublin by road, stands one of the best preserved of the round towers. Its height to the top of the cone is 90 feet. The doorway, which is approached by a flight of stone steps, comparatively modern, is square-headed, with inclined sides, and perfectly plain, as are also the windows and top apertures. Some years ago a gentleman of the neighbourhood caused this tower to be repaired, upon which occasion floors were added, and placed in their original position. Access may be had from storey to storey by the aid of fixed ladders, so that a visitor has here an opportunity for observation not frequently to be met with. It should be remarked that the projection at the base, about

Clondalkin Round Tower.

13 feet high, and which is nearly all solid masonry, is not found in any other round tower in Ireland, and it may possibly be an afterwork. The tower of Clondalkin, though nearly perfect, cannot be considered a very fine example of its class. It is built of rubble masonry, is somewhat low, and its roof, which does not appear to be original, is wanting in that degree of lightness and elegance observable in many.

The other towers in the immediate neighbourhood of Dublin are at Swords, Lusk, and Rathmichael. That of Swords has been disfigured by the restoration of the top, and the ivy which threatened its destruction has been removed. That of Lusk has been incorporated into the west end of the parish church, and the tower at Rathmichael is a mere stump.

Doorway of Clondalkin Tower.

Monasterboice.—There is a fine example at Monasterboice, within about six miles of Drogheda. The churches, the tower, and the magnificent crosses of this ancient foundation form a group of ecclesiastical antiquities in some respects unsurpassed in Ireland. A description of the crosses will be found in the previous chapter. The tower, the erection of which there is every reason to refer to an early period, is one of particular interest, exhibiting, as it does, a decorated doorway, the

head of which is cut out of two stones laid horizontally one above the other. A band extends round the head and down the sides of the doorway, but terminates on a level with the sill, or rather turns off at a right angle, passing horizontally for a distance of eight inches, from which point it ascends, and running upwards round the doorway head, gives the appearance of a double band. A space between the bands, upon each side of the upper part of the doorway, and one upon the semicircular arched head, left uncut, appear suggestive of the cross. The window immediately over the doorway may be looked upon as a characteristic example of the opening found in a similar position in most of the towers, and which is supposed to have answered the purpose of a second doorway, or to have been designed for the purpose of affording persons within the tower some means of defending the entrance beneath. In this example, however, it is unusually small. The other windows are square-headed, as were also the large apertures of the uppermost storey.* The masonry is good, and characteristic of an early period; the stones are large, well fitted together, and pass through a considerable thickness of the wall, as was observed in the injured upper portion of the structure. The tower has been well repaired by the Board of Works, and flights of steps laid from floor to floor, by which the summit of the top storey can be reached.

A church of very primitive construction, and probably several centuries older than the tower, stands in the cemetery, at a little distance to the north-east of the

* See Wright's *Louthiana*, Plate 14, Book iii

other remains. Its only doorway is placed, as usual, in the centre of the west gable. It is square-headed, and possesses every indication of great antiquity; but the accumulation of the churchyard soil has buried the lower portion at least to a depth of several feet. The church consisted of a nave and chancel; the latter has been destroyed, but a plain semicircular chancel arch remains. The church immediately adjoining the round tower is obviously an erection of the early part of the thirteenth century.

Kildare.—The round tower of Kildare is in several respects one of the most remarkable in Ireland. Its doorway, of which an illustration is annexed, is unusually rich, of Irish-Romanesque work, consisting of three concentric arches, upon two of which a variety of mouldings appears. The external arch is quite plain, and evidently not as ancient as the others. An ornamental canopy, a portion of which still remains, once surmounted the doorway. A still more remarkable and finer doorway is that of Timahoe. The tower of Kildare is 105½ feet high, and 55 feet in circumference; it bears evidence of having been repaired at various periods. Like the round tower of Cloyne,

Doorway of Kildare Tower.

Round Tower, Devenish.

in the County of Cork, and like those of Kilkenny and Kilmallock, it is finished with a plain battlemented parapet, comparatively modern, and added, probably, at some period when the original roof of stone had been destroyed, perhaps by lightning.

Devenish.—This tower, with other remains of antiquity, some of which are associated with the name of St. Molaise (see p. 288), stands on the Island of Devenish in Lower Lough Erne, a couple of miles from Enniskillen. The tower is 84 feet 10 inches high, and is remarkable for its symmetry, and the perfection and regularity of its masonry to the very apex. It has a round-headed doorway 9 feet from the ground; at this part it is 8 feet in diameter, and the walls are 4 feet thick. It has five storeys. Above the doorway is a triangular-headed window, and the top storey has four windows nearly facing the cardinal points. It has the unique distinction of possessing the only external decoration not connected with apertures. This is a cornice or band of Romanesque work, of good design, immediately beneath the conical cap. On the band, and over the apertures, are quaintly-executed heads, the beards consisting of interlaced patterns. The tower was thoroughly restored in 1835.

CHAPTER XIV.

EARLY CHRISTIAN ART: METAL WORK.

DEVELOPMENT OF EARLY CHRISTIAN ART — BELLS — THE BELL OF ST. PATRICK — THE SHRINE OF ST. PATRICK'S BELL — THE SHRINE OF ST. SENAN'S BELL — THE SHRINE OF ST. MURA'S BELL — BRONZE BELLS — THE BELL OF CHUMASCACH — CUMDACHS — THE CATHACH — THE DOMNACH AIRGID — THE BREAC MOEDOC — CROSIERS — THE CROSS OF CONG — CHALICES — THE ARDAGH CHALICE — THE TARA BROOCH.

WE have seen that in the Bronze Age a great advance had been made in metal work among the Celtic tribes of Europe, showing great technical skill, taste in design, and delicacy of touch in manipulation—qualities not excelled in the early part of the succeeding Christian period. The type of ornament which characterised the Later Bronze Age and the Early Iron period seems to have flourished longer in Ireland than elsewhere; and with the introduction of new elements by Christianity, it found, in time, its expression, not only in metal work, but in the stone work of ecclesiastical buildings, and in the illumination of copies of the Scriptures. The latter flourished especially, as we know, and the manuscripts which were executed by the early scribes in Irish schools are the finest of the kind now existing.

Bells.—With the introduction of Christianity came new needs; and bells were among the first articles provided for ecclesiastical purposes. Considering, as we have shown, the skill that had been attained in metal work in pagan days, it is strange that the earliest examples in Christian times were of a very rude kind. That no fine example of metal work of the Christian period in Ireland can be assigned to an earlier date than about the tenth century, may be due to the fact that the country was repeatedly swept by Norse invaders, and all such objects became their prey.

We read, in the Lives of St. Patrick, St. Columba, and others, of the names of various artificers who made bells, crosses, crosiers, and shrines for churches. Frequent mention is made of bells by the Annalists. The early bells were of a peculiar quadrangular form, and made of pieces of sheet-iron fastened together with rivets. The oldest example of the kind in Ireland is the *Bell of St. Patrick*, or Bell of Armagh, now in the Academy collection. It is of the rudest description, and its antiquity apparent. The space between the edges of the overlapping pieces seems to have been filled in with bronze to give the body complete cohesion; and the whole coated with a thin layer of a fusion of the same metal, which not only improved its tone, but preserved it from decaying by rust. There is good reason to believe that, as its name implies, it had belonged to St. Patrick himself. For many ages it was one of the chief treasures preserved in Armagh; here it was highly revered, so much so, that, about

the year 1091, it was enclosed in a magnificent and costly *Shrine,* which is also preserved in the same collection. The bell had its own keeper, and was handed down, as was the custom, from generation to generation in the same family, with the most scrupulous regard for its safety. The shrine, which is characteristic of the metal work of the period, is formed of bronze plates, to which decorated panels are attached by rivets. The front panel is divided into thirty-one spaces filled with gold ornament, crystals, and jewels; the setting of the crystals is evidently later work. The back consists of a fine and perfect silver plate, in open fret pattern. The sides are of gilt bronze, with open-work ornament of a highly complicated interlaced pattern. There are two arms at the sides, pierced, with rings inserted; the arms have a circular plate setting, and the spaces between them and the rims are filled with heavily-plated gold ornament. The handle portion of the shrine is highly ornamented with bird forms and interlaced design, in different treatment from the faces and sides. The shrine bears an inscription, in the Irish character and language, of which the following is a translation:—'A prayer for Domnall O'Loughlin, by whom this Bell (or Bell-shrine) was made; and for Domnall, the successor of Patrick, with whom it was made; and for Cathalan O'Maelchalland, the keeper of the Bell; and for Cudulig O'Inmainen, with his sons, who covered it.'

There are many other ancient iron bells in Ireland, examples of which will be seen in the National Museum. Of bell shrines, several others exist: that of St. Senan's

is in possession of Mr. Marcus Keene, whose family have been the hereditary custodians of the Saint's bell. The shrine of St. Mura's bell from Fahan, Co. Donegal, after various wanderings and changing of hands, is now in the Wallace collection, London.

About the tenth century, iron gave place to bronze as the more satisfactory material in metal for bells.

Bell of Chumascach Mac Ailello.

The date of one example at least is ascertained by an inscription on its outer surface. This is the Bell of Chumascach, and is also from Armagh. It is 12 inches high and 8 inches across the mouth, and is of cast bronze, but the handle and clapper are of iron. It bears the following inscription in Irish :—Oroit ar Chumascach m̄ Ailello (Pray for Chumascach, son of Ailello). The death of the person mentioned in the inscription

is recorded in the *Annals of the Four Masters* as occurring in A.D. 909.

Cumdachs.—The copies of the Gospels and other sacred writings which had been used by the early saints of Ireland were generally preserved by their successors, enclosed in cases formed of yew or some wood equally durable. Many of those cases were subsequently enshrined or enclosed in boxes of silver, or of bronze, called *Cumdachs,* richly plated with silver and occasionally gilt; and in several instances a third case appears to have been added. Sir William Betham, in his *Irish Antiquarian Researches,* describes several of those evidences of early Irish piety still extant and remaining in a state of preservation. There are two in Trinity College Library, the shrines of the Book of Dimma, and the Book of Mulling.

The fine shrine of Molaise's Gospels in the Academy collection dates from the first quarter of the eleventh century, and is the oldest of the Cumdachs. The shrine of the Stowe Missal, dating a little later, and the shrine of St. Columba's Psalter, are also in the same collection. A description of one example of these shrines will suffice. The Cumdach of St. Columba's Psalter, called the *Cathach,* or *Caha,* and also known as the 'Battler,' is a box about nine inches and a half in length, eight in breadth, and two in thickness, formed of brass plates riveted one to the other, and ornamented with gems and chasings in gold and silver. It was long supposed to contain the bones of Columba; and a superstitious belief was held as to the evil befalling him

who opened it. This, however, was done by Sir William Betham, and it was found to contain the customary rude wooden box enclosing a MS. on vellum, consisting of fifty-eight membranes. The MS. is a copy of the second revision of the Psalter by St. Jerome, and has been commonly attributed to St. Columba. The sheets were found to be incomplete and much injured: they began with the 31st and ended with the 106th Psalm. The decoration displayed upon the top of the box shows the comparatively late date of this portion of the relic. The top consists of a silver plate richly gilt, and divided into three compartments by clustered columns supporting arches. The central space is somewhat larger than the others, and contains the figure of an ecclesiastic, probably St. Columba, who is represented in a sitting posture, giving the benediction, and holding a book in his left hand. The arch of this compartment is pointed, while the others are segmental. The space to the left of the central figure is occupied by that of a mitred abbot, giving the benediction with his right hand, while in his left he holds a crosier. The compartment to the right of the central figure contains a representation of the Passion. There are figures of angels with censers over each of the side-arches. A border, within which the whole is enclosed, is formed at the top and bottom of a variety of fabulous animals; the sides represent foliage, and in each angle there is a large rock crystal. A fifth setting of crystal surrounded with smaller gems occurs immediately over the figure, which, as we have said, was probably intended to

represent St. Columba. The sides and ends of the box are also richly chased. An inscription in the Irish character upon the bottom desires 'a prayer for Cathbar Ua Domnaill, for whom this case was made; for Sitric, son of Mac Aeda, who made it; for Domnall, son of Robartach; for the successor of Kells, for whom it was made.' The Domnall here referred to as 'successor' of St. Columba is named in a charter, dating about 1084, in the *Book of Kells*: the end of the eleventh century was probably, therefore, the date of the shrine.

The Cathach appears to have been handed down from a very early period in the O'Donnell family, of which St. Columba, the supposed writer of the manuscript which it was made to enshrine, was a member. It was the custom to wear it round the neck as a breastplate; and, before engaging in warfare, it was exhibited in exhortation to the clan, and hence its name the 'Battler.'

The *Domnach Airgid*, also preserved in the Academy collection, is a very interesting relic of the kind under notice. It contained a considerable portion of the copy of the Gospels which was supposed to have been used by St. Patrick during his mission in Ireland, and which was presented by him to St. Mac Carthen. Unfortunately, when opened in 1832, the membranes of which the manuscript is composed had, through the effects of time and neglect, become firmly attached to each other. In 1892 the sheets were separated under the supervision of Dr. Maunde Thompson of the British Museum, and examined by Dr. J. H. Bernard. It was

shown that the box was not made for the MS., being too small; and the writing and text gave evidence that the copy was not earlier than the eighth century.

The manuscript has three distinct covers: the first and most ancient is of yew; the second of bronze plated with silver, of about the eleventh or twelfth century; and the third of silver plated with gold, dating about 1350. The outer and latest cover possesses many features in common with that of the Cathach. It has an inscription to John O'Karbri, who ordered it; and to John O'Barrdan, who made it. The former, according to the *Annals of the Four Masters*, was abbot of Clones, and died in 1353.*

The Breac (Speckled) Moedoc, from the Petrie collection, subsequently passing to the Royal Irish Academy, is one of the most curious of the ancient shrines. It is called after St. Moedoc, or Mogue, Bishop of Ferns, and is supposed to have contained relics from Rome brought by St. Molaise. It was preserved in Drumlane, County Cavan, until the middle of the last century. It is valuable on account of the details of ancient costumes which appear on eleven of the twenty-one figures originally attached to its sides. These were gilt or plated with gold; the case is bronze: the date is doubtful. A leather satchel which contained it is also preserved in the National Museum.

Crosiers.—In like manner to the bells, the pastoral crooks and crosiers which had belonged to the early

* See *Transactions* Roy. Ir. Acad., vol. xx.; also vol. xxx., p. 303.

fathers of the Irish Church, appear to have been regarded as holy. Their possession was also hereditary, and certain privileges, such as grants of land, were given to the custodians. Notwithstanding the frequent pillage of church property by the Danes, and the destruction of 'superstitious' relics in a later time, numerous examples, remarkable for the beauty of their decoration and the excellence of their workmanship, have been preserved to our own day. The Irish crosier has simply the curved handle of a staff, which seems originally to have belonged to a saint or founder of a church, on which the metal covering was subsequently laid. It is not the shepherd's crook, so familiar as the emblem of episcopal office. The crosier usually exhibits a profusion of ornament, consisting of elaborately interwoven bands terminating generally in serpents' heads, or in some equally singular device. In several specimens occur settings formed of stones or an artificial substance, variously coloured; but this is supposed to indicate a comparatively recent date. The continental type was probably introduced in the twelfth century, under the influences already referred to in the foundation of monastic establishments. A well-known example is the Crosier of Cashel, with enamelled circular head and figure, one similar to which, and ascribed to above period, is in the Cluny Museum, Paris.

An interesting and perhaps the oldest crosier in the Academy collection is that of St. Berach of Termonbarry, which was handed down through its hereditary custodians the O'Hanlys. The date of the Irish crosiers is probably not earlier than the end of the tenth cen-

tury. From the inscription on the crosier of Lismore, it doubtless dates about the beginning of the twelfth century, during the time in which Niall Mac Mic Aeducain, or Mac Gettigan, held the bishopric.

The Cross of Cong.—This Cross is the chief gem of the Academy collection, not only from its historical associations, but also as it affords striking evidence of the advancement which the Irish artificers had made in several of the arts, and in general manufacturing skill, previous to the arrival of the English. It was made in Roscommon by native Irishmen, about the year 1123, by order of King Turlough O'Conor, father of Roderick, the last monarch of Ireland.

This the *Annals of Inisfallen* state, and the evidence is supported by inscriptions on the edges of the cross; one is in Latin, mentioning that it contained a piece of the 'true Cross'; the others are in Irish, praying for Archbishop Muiredach O'Duffy of Tuam, who died in 1150; for King O'Conor; for Domnal O'Duffy, Archbishop of Connaught, and for the artificer Maelisa Mac Bratdan O'Echan. The cross seems to have been brought to Cong either by the Archbishop, who died there, or by King Roderick, who founded and endowed the abbey.

The cross is $2\frac{1}{2}$ feet high, the arms 1 foot $6\frac{3}{4}$ inches in width, and it is $1\frac{3}{4}$ inches thick. It ends in the grotesque head of an animal, and below this is a large ball, highly decorated, forming the head of the socket for the shaft when the cross was carried in procession. The frame is of oak, and over this are laid plates of

The Cross of Cong.

copper richly covered with gold tracery. The edges are formed into a raised rim by a covering of silver, and divided into sections, which are marked by eighteen rounded projections set with stones or enamels, thirteen of which remain. A thin silver ribbon is set between the rims, upon which are the inscriptions in punched lettering.

The ornaments generally consist of tracery and grotesque animals, fancifully combined, and similar in character to the decorations found upon crosses of stone of about the same period. A large crystal is set in the centre at the intersection of the arms and shaft, behind which the relic was set. The cross had been carefully preserved after the suppression of the monasteries, and was found in an oak chest in the village of Cong early in the last century. It was purchased by the late Professor Mac Cullagh for the sum of one hundred guineas, and presented to the Academy in 1839.

Chalices.—Among the more singular relics in the Academy collection is a chalice of stone. Though formed of so rude a material, there is nothing in its general form or in the character of its decorations to warrant a supposition that it belongs to a very early period. Few chalices of an age prior to the twelfth century remain in Ireland; and any of a later date are not very remarkable as objects of antiquarian interest. Cups of stone appear to have been not uncommon among the Irish. An ancient vessel of this material, of a triangular form, was to be seen by the side of a holy well in Columbkill's Glen, in the

County of Clare; and another was found some years ago in the County of Meath, near the ruins of Ardmulchan Church.

The most remarkable object of the chalice class known to have been found in Ireland is the famous *Ardagh Cup*, or *Chalice*, which figures amongst the choicest examples of metal-work preserved in the collection of the Academy. It, together with a

Chalice of Ardagh.

plain bronze cup and some fine silver brooches, was discovered in 1868 in a rath situated not far from Ardagh, County Limerick.

We take the following particulars from a description furnished by the late Mr. Johnson to Lord Dunraven:—The bowl is of silver; but gold, bronze, brass, copper, and lead are used in the fittings and ornament. The

latter consists of an inscription, interlaced pattern terminating in dogs' heads, and at the bottom a circular band with Greek pattern. The ornamentation is punched, as is shown by the raised edges. A band of two semi-cylindrical rings of silver ornamented with small annular dots runs round the cup. Twelve plaques of gold *repoussé* work fill the space between the rings, with beautiful ornamentation of fine filigree work of the usual interlaced pattern. Twelve round enamelled beads are set between the plaques. The handles are also ornamented with enamels and filigree work, but in different designs. On the sides of the bowl are two circular ornaments, with central enamelled bosses surrounded by gold filigree work. The stem and supports of the bowl are of gilt bronze engraved in interlaced pattern. The foot of the bowl is circular; the outer rim of the framework is divided into eight spaces, filled alternately with gold and bronze gilt plaques of open work, the designs of which are clearly shown by pieces of mica set as a background. The inside of the foot is also elaborately executed with a circular piece of crystal in the centre, enamelled spaces and fine filigree work.

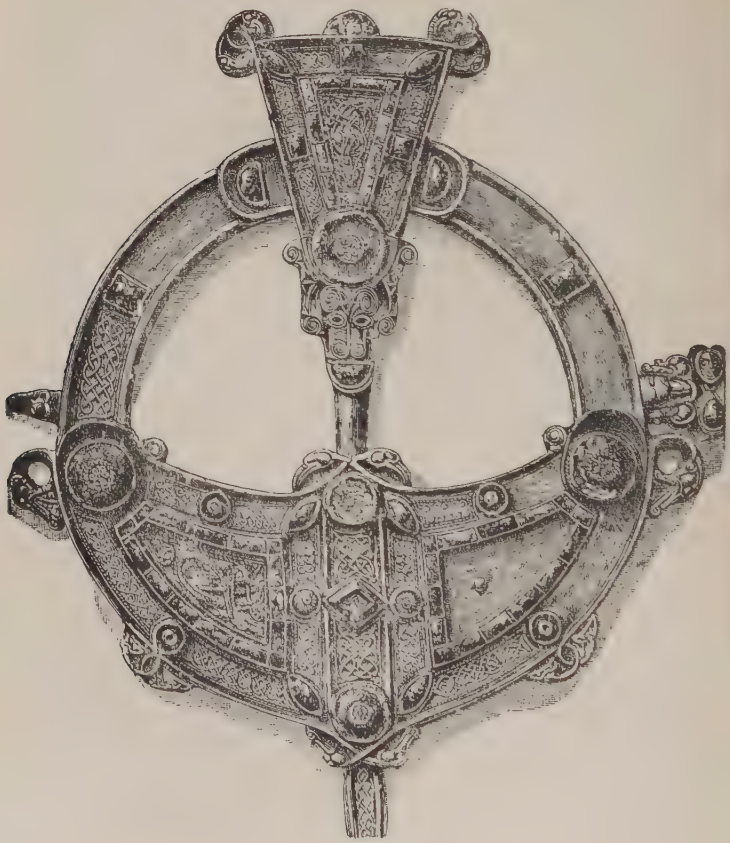
There are no fewer than 354 pieces of metal, if we include twenty rivets, in the composition of this most remarkable Cup. The inscription, in peculiar square-formed letters, is a remarkable feature, and gives the names of the Twelve Apostles — St. Paul being included. It runs round the cup under the band already mentioned; the letters are not easily

legible, as the outline is faint. 'The spaces between are stippled so as to form a shaded background.' The late Lord Dunraven in his interesting paper was inclined to attribute the Cup to the ninth or tenth century, taking into account the ornament, lettering, and style of workmanship.

We have already referred to the development of the bronze brooch and ring-pin (p. 237), and the process can be clearly traced from the numerous specimens arrayed in the National Museum. The earlier brooch had open and expanded ends between which the pin passed, and the brooch was made fast by twisting it round upon the pin. The ornamentation was Late Celtic, often with enamelled design. In time the enlarged ends were closed by a bar, and in the latest form the ends became a complete plate and the pin of great length, to which a chain was attached for safety. These were highly ornamented with filigree work and enamel; the design is varied and beautiful in elaborate Celtic pattern.

Of the many brooches of this class discovered, the finest without exception is that known as the *Tara Brooch.* It was found in 1850 on the sea-shore near Bettystown, Co. Louth, and was bought by Waterhouse, who gave it the name of 'Tara' on account of the beauty of its workmanship and the associations connected with the celebrated hill. It was purchased from him for the Academy by the Government in 1867. It is made of white bronze, a metal harder than silver and composed of copper and tin. It is gilt and divided into a number of panels, most of which are filled with filigree work in gold, with settings of amber, glass, and enamel.

The fastening of the gold filigree is hardly perceptible to the naked eye, and a strong glass is needed to see



The Tara Brooch

the full beauty of the ornament of this work. 'The Tara brooch,' says Petrie, 'is superior to any hitherto

found in the variety of its ornaments, and in the exquisite delicacy and perfection of its execution.' Attached to the brooch is a chain of the work known as 'Trichinopoli,' which was used to fasten the brooch when worn. The divergent spiral, or trumpet, pattern, which is so characteristic of the decoration of Early Christian Art in Ireland, is carried to great perfection on the reverse side of the brooch. If we are to judge by the general disappearance of this ornament about the beginning of the eleventh century, we get a probable date for this object.

We have in this chapter only briefly indicated the nature of the metal art of the Early Christian period, and dealt with but a few of the best-known examples, as indeed a special work would be required to cover so wide a field.

CHAPTER XV.

ABBEYS AND LATER CHURCHES: FONTS.

FOUNDATION OF ABBEYS AND CHURCHES—JERPOINT ABBEY, CO. KILKENNY—CATHEDRALS OF ST. PATRICK AND CHRISTCHURCH, DUBLIN—ABBEYS OF NEWTOWNTRIM AND BECTIVE, CO. MEATH—CHURCHES OF CANNISTOWN, NEAR NAVAN—ST. DOULOUGH'S—THE 'ABBEY' AND ST. FINTAN'S CHURCH, HOWTH—EARLY FONTS—EXAMPLES AT KILLINEY—KILTERNAN—ST. JOHN'S POINT—KILLESHIN—KILCARN, CLONARD, AND DUNSANY, CO. MEATH.

THE preceding chapters early churches and other Christian remains possessing characteristics distinctively Irish have been described. It has been stated that at the Anglo-Norman Conquest Irish architecture may be said to have ceased, the invaders having brought with them their own fashion of building, which was afterwards adopted by the Irish. How far the stone-roof style of building, which reached its culmination in King Cormac's Chapel, could have been carried by builders working on their own free and independent lines we need not discuss. But never at any time could it be said that Ireland lay without the sphere of new influences, as we have tried to indicate in tracing this sketch of her pagan and early Christian remains. Irish-Romanesque work reached its highest development

in the twelfth century; and during the latter half, to the beginning of the thirteenth century, a great change was witnessed in the style of architecture as applied to ecclesiastical edifices throughout the land.

The rapid growth of the great monastic orders in England in time affected Ireland. From the Norman Conquest to the close of the reign of Edward III. it has been computed that 1200 institutions were founded in England, and of these 228 were established in the reigns of Stephen and Henry II.—a development which was more or less felt in the sister kingdom. A complete change was made at this period in the old monastic system which had existed from the first days of Christianity in Ireland. This was due to St. Malachy O'Morgair, the friend of St. Bernard of Clairvaux, and who died there when on a visit to him in 1148. He introduced the Cistercian Order, the greatest builders of all the Orders, and founded for them the first of their great monasteries in Ireland. Mellifont was established by St. Malachy in 1142; and in nine years Bective, Newry, Athlone, Monasteranenagh, Boyle, and Baltinglas were founded and affiliated to it; and before 1172 we are told that twenty-five Cistercian monasteries were established in the land. This is sufficient to show that modifying forces were at work before the Anglo-Norman invasion touched Irish shores. As we have seen, for several centuries previous to it, Irish architecture had been gradually undergoing a development, and had in some measure become what in England is known as the Norman style. Towards the close of the twelfth century the Irish

kings and chiefs, and the Anglo-Norman earls and barons settled in Ireland, appear to have vied with each other in the erection of abbeys, the ruins of which, to this day, attest the zeal and power of their founders. Most of the monastic structures of this period, in their larger arches, exhibit beautiful examples of the earliest Pointed style, while the doorways and smaller openings remain semicircular, and frequently exhibit pure Norman details. Almost the last traces of peculiarly Celtic architectural art appear to have died out in Ireland about the close of the twelfth century.

Jerpoint Abbey.—Jerpoint Abbey, belonging to the Cistercian Order, in the County of Kilkenny, whose foundation is attributed, as well as to others, to Donogh MacGilla-Patrick, Lord of Ossory, is, perhaps, the finest structure of this period remaining in Ireland. The plan of the church was cruciform, with aisles on the north side of both nave and choir. The greater portion of the southern wall has been destroyed. The western window consists of three lights, with semicircular heads, surmounted by a continuous weather-moulding. A fine range of clerestory windows of the same character appears in the north wall of the nave. The tower, though of considerable antiquity, is evidently of later date than the Transition period. The only entrance to the body of the church from the exterior appears to have been a small doorway in the south wall of the nave; and this is defended by a bartizan similar to those found upon the castles of the twelfth century. Of the battlements of the tower, so conspicuous a

feature in many of the early buildings, Fergusson says they are 'identical with many found in the north of Italy, but very unlike anything either in England or Scotland. They give a foreign look to the whole building, which is very striking.'

Chevroned Pointed arches occur in the nave of Dunbrody Abbey, which belongs to this period; it was erected for the same Order in 1182 by Hervey de Montemarisco, Marshal of Henry II., who became its first abbot.

The Transition style soon gave place to the Early Pointed, and the finest existing cathedrals and abbeys belonged almost exclusively to the latter. As early examples, we may mention portions of Christchurch and St. Patrick's Cathedrals, Dublin; Kilkenny Cathedral; Gray Abbey, Co. Down; the Cathedral of Cashel; the Abbey of Newtown, near Trim; and Kilmallock Abbey, Co. Limerick. Perhaps the finest window of this style in Ireland is that of the Abbey of Kilmallock. It consists of five slender lancets, separated by shafts, upon which are two sets of the bands so characteristic of this period. A large and beautifully proportioned arch embraces all the lights, which, both internally and externally, are enriched with a bead moulding.

St. Patrick's Cathedral.—The Cathedrals of St. Patrick and Christchurch, Dublin, were, for the most part, built about the same period, the former (commenced in 1190) upon the site of an older church, by John Comyn and his successor Henry de Loundres (1212–28), Archbishops of Dublin. Its prevailing style is Early or First Pointed,

and it is remarkable as the only structure in Ireland having original flying buttresses. The nave, choir, and transepts are ascribed to London masons; and the graceful features of the Lady Chapel have a marked resemblance to contemporary work in the Temple Church. It was carefully restored by Carpenter in 1845. The Cathedral suffered many vicissitudes and rebuildings, so as almost to destroy all details of the original features. In 1869 it was restored at the sole expense of Sir Benjamin Lee Guinness, at a cost of £150,000. A recent restoration, under the direction of Sir Thomas Drew, includes the choir and lateral aisles, and the replacing of stone groining. Though in point of size and architectural grandeur St. Patrick's cannot be compared with many structures of the same class elsewhere, it is, nevertheless, a very chaste and beautiful building.

Christchurch.—Christchurch was originally founded in 1038 by Sigtryg, son of Amlaf, King of the Danes of Dublin, in conjunction with Donatus, the first Danish bishop; the crypt beneath nearly all the church represents the original plan. The oldest portions of the ancient building, raised by Strongbow and St. Laurence O'Toole on the Danish foundation in 1170, are the transepts, some of the arches of which display chevron mouldings, and the Norman doorway, which forms the principal entrance. It was removed some years ago from the north transept, and placed in its present position, where it forms a conspicuous feature. The nave (*circa* 1230) has the distinctive features of the English mason

work of Glastonbury; and, as in the case of Kilkenny Cathedral (thirteenth century) and other buildings, it is very probable that the designers and builders were brought from the south-west of England and South Wales. The arches of the nave are remarkably beautiful, springing from piers formed of clustered columns, and displaying in their capitals foliage of exquisite and graceful design. An ancient inscription, recently interpreted 'John, Master Builder of the fraternity of Parma,' seems to preserve the name of the reputed architect of the Anglo-Norman building. The ancient wrought stone of the two Cathedrals is a very durable Somersetshire oolite, but its particular source is not known. Christchurch, like St. Patrick's, has been thoroughly restored by private munificence,—at the hands of the late Henry Roe, and at an expense of over £160,000.

Newtowntrim Abbey.—The Abbey of Newtowntrim, founded by Simon Rochfort, or de Rupeforti, for Augustine Canons, about A.D. 1206, and dedicated to SS. Peter and Paul, though now in a hopeless state of dilapidation, was originally one of the finest of the many establishments in this part of Leinster. This can be judged from the beauty of some of the details, such as the capitals, vaulting, and shafts, which have not been disturbed, and from the numerous fragments of its once noble windows and arches with which the surrounding cemetery is strewn. Broad strips of masonry, placed at a considerable distance apart, project from the walls of the church upon the exterior—a feature never found except in early work,

and which is generally characteristic of the Norman period. But it is within the walls that we must seek for evidence of the former beauty of the building. Several chastely decorated corbel shafts remain, and support portions of the ribs by which the vaulted roof was sustained. The windows are of the lancet form, with piers between, and the mouldings which run round them are ornamented with beautifully designed bands. Sedilia, in the Norman style of architecture, may be seen in the wall to the right of the space once occupied by the altar. The ruins on the opposite side of the river and the ancient bridge at this place are worthy of notice, although they do not possess any striking peculiarity.

Bective Abbey.—The Abbey of Bective, in the immediate neighbourhood of Trim, was a Cistercian house, founded by Murchard O'Melaghlin, Prince of Meath, in A.D. 1146. The ruins exhibit, in a remarkable degree, a union of ecclesiastical with military and domestic architecture. Their chief feature is a strong battlemented tower, the lower apartment of which is vaulted, placed at the south corner of the quadrangular space occupied by the various buildings, and in the centre of which the cloisters remain in good preservation. The cloister arches are late in the First Pointed style, and are cinque-foiled. The featherings are mostly plain; but several are ornamented with flowers, or leaves, and upon one a hawk-like bird is sculptured. A fillet is worked upon each of the clustered shafts by which the openings are divided,

and also upon their capitals. The bases, which are circular, rest upon square plinths, the angles of which are ornamented with a leaf, growing, as it were, out of the base moulding. Of the church there are scarcely any remains. As the northern wall of the cloister is pierced with several windows which now have the appearance of splaying externally, it is extremely probable that it also served as the south wall of the church, no other portion of which can at present be

Bective Abbey, near Trim, Co. Meath.

identified. Those buildings which were devoted to domestic purposes are, for the most part, situated upon the east side of the quadrangle. Their architectural details are of a character later than those of the tower and of the other portions; but additions and alterations have evidently been made. Several of the apartments have large fireplaces covered with flat arches, the stones of which are dove-tailed into one another. The

flues are carried up through the thickness of the wall, and are continued through square tapering chimney-shafts, headed with a plain cornice. In its general arrangements Bective Abbey differs from every other monastic structure in Ireland. It is, in fact, a monastic castle, and, previous to the use of artillery, must have been regarded as a place of great strength.

The smaller churches of the close of the twelfth, and of the early half of the thirteenth, century, are not different in general form from those of an earlier age. In a few examples, indeed, transepts occur, as in the church of Clady, adjoining Bective; but they are not invariably evidences of comparatively recent work, being sometimes found in connection with very early churches, to which they have evidently been added, and from which, in their architectural details, they differ in every respect.

Down to the very latest period of Pointed architecture the original plan of a simple nave, or nave and chancel, was followed; and the chief or only difference observable in churches of an early date, from those of the sixth and seventh centuries, consists in the form of the arch-heads, the position of the doorway, the style of the masonry, which is usually much better in the more ancient examples, and the use of bell-turrets, the cloictheach or detached round towers having answered this purpose during the earlier ages.

A beautiful and very characteristic example of an Early Pointed church may be seen at Cannistown, not far from Bective, upon the opposite side of the Boyne. As usual it consists of nave and chancel; and there are

the remains of a bell-turret upon the west gable, the usual position. The choir arch is represented in the annexed cut. There are numerous instances of churches in this style scattered over Ireland; but they are usually plain, and the choir arch is generally the least ornamented feature of the building.

Choir Arch of Cannistown Church, near Navan, Co. Meath.

As examples, we may refer to the churches of Kilbarrack, Dalkey, Kinsaly, and Rathmichael, all in the immediate neighbourhood of Dublin. The church at Dalkey indeed cannot be regarded as a very good example, as it has evidently been altered and remodelled at various times. A portion of the north nave wall, including the semicircularly arched window, may probably have formed part of an extremely ancient *Teampull*, dedicated to St. Begnet, which is recorded to have stood here. It may be observed that the piscinas, or stoups, do not occur in the early churches of Ireland; they appear to have been adopted during the latter half of the twelfth century, and churches of a later period frequently contain several.

St. Doulough's.—The Church of St. Doulough, the origin of which is involved in obscurity, is unique, and the most remarkable example of Pointed architecture

remaining in Ireland. Bishop Reeves was of opinion that St. Doulough lived about the year 600, and had a cell here. The church lies about six miles north of Dublin, and, owing to its incongruity, has received much attention from writers on the ecclesiastical architecture of Ireland. This church has generally been classed with the stone-roofed chapels and oratories of the early Irish saints; but in style it differs completely from those buildings; and numerous architectural peculiarities, evidently original, prove the structure to belong to the latter end of the thirteenth century. It is an oblong church, 48 feet by 18 feet, with a square battlemented tower in the centre. A projection on the south wall of the tower contains a passage leading from the lower part of the building to an exceedingly small chamber, in the east wall of which are two windows, one commanding the only entrance to the church, the other an altar in an apartment or chapel between the tower and the west gable. The body of the structure is divided upon the interior by a mass of masonry which was evidently intended to support the roof, and which contains a small semicircular arch now stopped up. The western apartment measures 10 by 7½ feet; it is vaulted, and was originally lighted by several windows with flat or trefoiled heads. The altar, or 'tomb,' as it is popularly called, rests immediately against the masonry which divides this apartment from other portions of the building. The chapel or eastern division measures 21 by 9½ feet. It was lighted by four windows, one to the east, two to the south, and one, now stopped up, to the north. The east window is larger

than the others, and is divided into two lights, by a shaft, with shallow hollows at the sides and a semi-cylindrical moulding on its external face. Similar hollows, and a moulding, run round the arch, and meet those of the shafts. The north window is of

St. Doulough's Church, Co. Dublin.

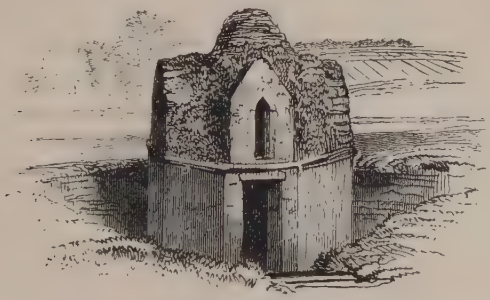
plain early Lancet form. The windows in the south wall are unequal in size; the larger one is placed beneath the tower, near the centre of the building, and is divided by a shaft into two lights, the heads of which are cinquefoiled, while the space between

them and the crown of the arch is left plain. The vaults of the lower apartments form the floor of a croft occupying uninterruptedly the whole length of the church. There are the remains of a fireplace in the centre of the north wall of this singular room, which appears to have been originally used as a habitation. It is lighted by small trefoiled opes in the end walls, and is higher by several feet, for a distance of about four yards from the west gable, than the other part. By this arrangement, and by a depression of the vault of the western division of the building, provision is made for a small intermediate chamber, to which a passage from the tower leads. The latter was divided by a wooden floor into two storeys, the lower of which contains a small fireplace. The roof of the church is formed of stones, well cut, and laid in regular courses. It has been suggested that the tower is more modern than the church; its upper portion is certainly different in style of masonry from the rest of the building, and appears to be an addition or restoration; but the body of the tower is clearly coeval with the church.

Such are the more remarkable features of this singular structure, in the erection of which the architect appears studiously to have avoided every principle of Gothic composition except variety.

The well of St. Doulough, which was probably also used as a baptistery, is quite in keeping with the curious character of the church. The spring, which is covered by a stone-roofed octagonal building, rises through a circular basin, cut out of a single stone, and was,

down to our own day, thought to possess miraculous powers. According to tradition the interior was once decorated with pictures, and holes are pointed out as having been made for the reception of iron pins, or holdfasts, by which they were secured to the wall. Adjoining is a curious subterranean bath. It is supplied by the well; and even yet the water rises to some depth within it. According to J. D'Alton, the historian of Co. Dublin, the well was dedicated to the Blessed Virgin, and the bath was called 'St. Catherine's Pond.'



St. Doulough's Well.

There are many interesting old Churches in Fingal, the name by which the North of the Co. Dublin was known long before the Conquest. Their history is told in Canon Robert Walsh's careful work, *Fingal and its Churches.* To a few of these we briefly refer.

Howth 'Abbey.'—The Church of St. Mary or Collegiate Church, more commonly known as the 'Abbey' Church of Howth, stands near the edge of a cliff, the base of which was formerly washed by the sea. The

original foundation is said to be by Sigtryg the Dane in 1042; and a portion of this church still remains at the west entrance. This was enlarged, chiefly by the addition of a north aisle in 1235 under Archbishop Luke, on the removal of the prebendal church of Inis Mac Nessan from Ireland's Eye to the mainland, a grant of land having been given by Almaricius, Lord of Howth, for this purpose. Placed upon a precipitous bank, considerably elevated above the water's edge, and surrounded by a strong embattled wall, it presents a striking evidence of the half-ecclesiastical, half-military character of the time. Considerable additions were made to the east side in the fifteenth century. The church was practically a two-aisled structure, the north aisle being a little shorter than the south. The arches dividing the aisles are six in number; and with the exception of the two adjoining the east end, which are separated by an octagonal pillar, they spring from rudely-formed quadrangular piers. The three to the west end denote the earlier addition; those to the east are more pointed and show the later extension. The porch in connection with the south doorway is a very unusual feature in churches found in Ireland—a fact not easily to be accounted for, as they appear to have been common in England during mediæval times. A bell-turret with three apertures rose from the west gable; the bells are said to be preserved in the castle.

A tomb usually ascribed to Christopher, the twentieth Lord of Howth, who died in 1589, but which, from its style, is more probably that of Christopher the

thirteeenth Lord (*d.* 1430), stands in the nave not far from the east gable. It is a good specimen of the altar-tomb; but an inscription which it bears, owing to the neglected state in which the monument until lately was suffered to lie, has become illegible.

St. Fintan's.—The little church of St. Fintan, situated upon the Hill of Howth, not far from the village of Sutton, cannot be of earlier date than the 'Abbey.' This singular building measures upon the interior but 16½ feet in length, by 7 feet 8 inches in breadth, yet it contains five windows: one to the east, two to the south, one to the north, and one in the west gable. These lights are of various forms: that to the east has a semicircular head with a multifoil moulding; one of the windows in the south wall is covered with a single stone, out of which a semicircular arch-head is cut, while the other is quadrangular. All the windows splay widely upon the interior. A doorway in the Lancet form is placed in the west gable, which supports a bell-turret of considerable dimensions, and strangely out of proportion to the size of the structure. It contains one small Pointed aperture for the reception of a bell. Of the origin of this church nothing is known; and there were twelve saints of the name of Fintan; but the date is very fairly indicated by its architectural peculiarities, which are characteristic of the close of the thirteenth or early part of the fourteenth century.

There is a very ancient church remaining on Ireland's Eye, a romantic islet, or rock, lying off the North side

of Howth. The place was formerly known as *Inis-mac-Nessan*, from the three sons of Nessan, viz. Dicholla. Munissa, and Nadsluagh, who some time in the seventh century erected a little *Teampull* or *Cill*; the remains of Kilmacnessan still exist. It consists of a nave and chancel, and the nave is 1 foot narrower at the west end than at the east. The doorway has sloping jambs and a rounded head. An arch spanning the east end formerly sustained a round tower belfry—a later addition, and a curious feature, as the usual position is at the west end. The whole building was so restored in the last century that it is impossible to identify satisfactorily anything of the original structure.

FONTS.

A very considerable number of ancient baptismal fonts still remain within the walls of the ruined churches of Ireland, and others are found in graveyards where churches, of which no vestige remains, formerly stood. The fonts usually found in connection with the more ancient churches are extremely rude, and of small dimensions, being rarely large enough to allow of the immersion of infants. They are almost in every instance formed of a single stone, clumsily hollowed, and having a hole at the bottom of the basin; but in some instances no mode of escape for the water appears.

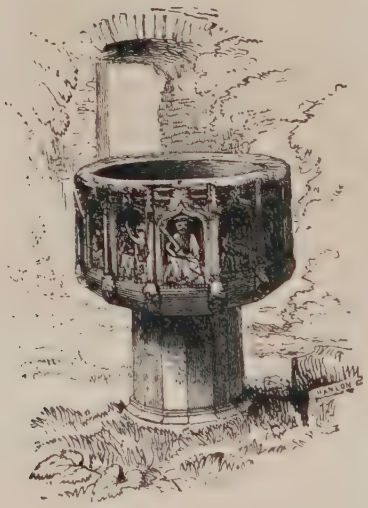
A very early font occurs in the ancient church of Killiney, Co. Dublin; and there is another in the equally ancient church of Kilternan, about six miles

south of the city. An example, in which there is no passage by which the water can escape, may be seen in the church of St. John's Point, Co. Down. There is a fine twelfth-century font of black marble in Kilkenny Cathedral; it rests on four columns and a central drum, and has fluted faces and incised spandrils round the bowl. The earliest fonts are generally somewhat circular in form; but the stone appears only to have been roughly hammered, and in no instance can be perceived any attempt at decoration.

Killeshin Font.—One of the oldest ornamented fonts remaining in Ireland is that which stands in the graveyard of Killeshin. It is of a bulbous form, and the base is cut into the figure of an octagon. After the twelfth century, fonts of greater size, and supported by a short column, appear to have become common. Their form is generally octagonal; but they are seldom enriched in any way, and when ornaments occur, they consist only of a few mouldings upon the shafts or upon the upper edge of the basin. From the absence of mouldings in the majority of instances, it is extremely difficult to assign a date to the numerous fonts of an octagonal form which remain in many parts of the country. During the period of debased Gothic architecture, a great many appear to have been erected in Ireland, particularly in the district comprising the old English Pale.

Kilcarn Font.—We have engraved an unusually fine example from the mediæval church of Kilcarn, near

Navan, in the County of Meath, and now in the Roman Catholic Church at Johnstown close by. Placed upon its shaft, as represented in the cut, it measures in height about 3 feet 6 inches; the basin is 2 feet 10 inches in diameter, and 13 inches deep. The heads of the niches, twelve in number, with which its sides are carved, are enriched with foliage of a graceful but



Kilcarn Font, Co. Meath.

uniform character; and the miniature buttresses which separate the niches are decorated with crockets, the bases resting upon heads, grotesque animals, or human figures carved as brackets. The figures within the niches are executed with a wonderful degree of care, the drapery being represented with each minute crease or fold well expressed. They were evidently intended

to represent Christ, the Virgin Mary, and the twelve Apostles. All the figures are seated. Our Saviour, crowned as a King, holding in His hand the globe and cross, is in the act of blessing the Virgin, who is also crowned the 'Queen of Heaven.' The figures of most

Kilcarn Font. No. 1.

of the Apostles can be easily identified: St. Peter, by his key; St. Andrew, by his cross of peculiar shape; and so on. They are represented barefooted, and each holds a book in one hand. In the Church of Clonard

Kilcarn Font. No. 2.

is another interesting font. The basin is octagonal, and the external panels are divided into two compartments filled with Scriptural subjects, such as the Flight into Egypt, the Baptism in the Jordan, etc.

A font almost precisely similar in design may be seen in the choir of the ruined church of Dunsany, near Dunshaughlin, in the same county; but it is of smaller size, and the figures and ornaments with which it is sculptured are less prominent than those upon the

Kilcarn Font. No. 3.

example at Kilcarn. It is 3 feet 6 inches in height, with an octagonal head. The panels contain representations of the Crucifixion, many of the Apostles, and other figures. The shaft is carved in heraldic and other

Kilcarn Font. No. 4.

devices. Its probable date is about the middle of the fifteenth century. A fine and unusually large font remains in Christchurch, Dublin; and in several churches referred to in this work, interesting specimens occur.

CHAPTER XVI.

CASTLES.

GENERAL DESCRIPTION—MALAHIDE—TRIM—MAYNOOTH—IRISH CASTELLATED HOUSES—SCURLOUGHSTOWN—BULLOCK CASTLE—TOWN GATES AND WALLS—BRIDGES.

THE castles of Ireland are exceedingly numerous and vary from the single keep-tower of the predatory chieftain to the defensive fortresses erected under the Anglo-Norman barons and their successors. All through the Middle Ages, strongholds, necessary in a land torn by petty wars and successive rebellions, were built, and as occasion required, strengthened and restored, so that some of the more important features of the chief castles now remaining date from a much later period than their original foundation. In a few, indeed, such as Dublin, Kilkenny, and Lismore, much of the work is of modern date. Many fine castellated mansions were built in the reigns of Elizabeth and James I. by the new settlers on the confiscated lands in the North and South.

The County of Wexford was sprinkled with castles, many of which were built by the first Anglo-Norman settlers; and a ring of fortresses surrounded the Pale at an early date. John de Courcy and Hugh de Lacy were the chief builders of these strongholds to defend the lines of their new possessions. In the North the

remains of Dundrum Castle—a fine example of the donjon keep—Greencastle, Kilclief, Carlingford, and others testify to the defences necessary in those days to hold the conquered lands. In the great territory of the princely Desmonds, stretching from the Barrow to the Shannon mouth, the ruins of many of their castles still exist, besides others of lesser clans. Clare had numerous castles, the Macnamara clan alone being credited with fifty-seven. Some fine examples still exist, such as Bunratty, which was used as a residence down to comparatively recent times.

Though the castles of Ireland, in point of architectural magnificence, are not to be compared with many of the more important structures of a similar character in England, they are frequently of very considerable extent. Placed as they often are upon the summit of a lofty and precipitous rock, the base of which is usually washed by the waters of a river or lake, or by the sea, encompassed with walls and towers pierced with shot-holes, and only to be approached through well-defended gateways, they must, before the introduction of artillery, have been generally considered impregnable. Several of the early keeps are circular; but they usually consist of a massive quadrangular tower with smaller towers at the angles. The internal arrangements are similar in character to those seen in the military structures of the same period in England and elsewhere. The outworks and other appendages to the majority of the most remarkable castles in Ireland have been destroyed, not by the usual effects of time and neglect, but by gunpowder, as the enormous masses

of masonry overthrown, and lying in confused heaps, sufficiently testify. The cannon of the Cromwellian army left most of the strongholds of the Irish and of the Anglo-Irish in ruins. Shortly after the Restoration the necessity for castles ceased; and, with some exceptions, the few that had escaped the violence of the preceding period appear gradually to have been deserted and suffered to decay.

Malahide Castle.—The castle of Malahide, situated about nine miles from Dublin, is perhaps the most perfectly preserved of the ancient baronial residences

Malahide Castle, Co. Dublin.

now remaining in Ireland. It owes its foundation to Richard Talbot, who, in the reign of King Henry II., received a grant of the lordship of Malahide, and of whom the present lord is a lineal descendant. The castle, upon the exterior, retains but little of its ancient character; portions have been rebuilt; the old loopholes have given place to modern windows; the tower upon the south-east angle is an addition of the last

century; the formidable out-works have long been removed, and a grassy hollow indicates the position of the ancient moat; yet notwithstanding all these changes it is still an object of much antiquarian interest. The entrance is through a low Gothic porch, attached to which is an ancient oak door studded with huge nails, and from which an antique knocker is suspended. The interior presents many features unique in Ireland. The oak room is of particular interest with its quaintly carved arabesques, black as ebony, its antique armour, and the storied panels of the northern side. The banqueting-hall is a room of fine proportions and retains its original oak roof and gallery. The walls of the chief rooms are hung with pictures and portraits, several of which are of much historical interest. Among the former an altar-piece by Albert Durer is perhaps the most remarkable. It is divided into compartments representing the Nativity, Adoration, and Circumcision. This interesting picture, which is said to have belonged to Mary Queen of Scots, was purchased by Charles II. for the sum of £2000, and presented by him to the Duchess of Portland, by whom it was given to Lady Talbot.

The chapel, popularly called the 'Abbey' of Malahide, lies a little to the east of the castle. Though its architectural features are no way remarkable, it is a picturesque building. The Perpendicular window in the east end, however, should be noted, as also the tomb of Maud Plunkett, lying in the nave. Of this lady it is recorded that she was a maid, wife, and widow in one day, her husband having fallen when

resisting a sudden predatory attack made by a neighbouring clan during the day of his marriage. The story forms the subject of a ballad from the pen of Gerald Griffin.

We have noticed the castle of Malahide first, not that it is supposed to be the most characteristic example of an ancient fortress lying within easy access from Dublin, but because it remains certainly the finest structure of its age and purpose at present to be met with in Ireland, still inhabited, and occupied by a descendant of the original founder.

Castle of Trim, Co. Meath.

King John's Castle at Trim is of at least equal antiquity, and, though in a state of utter ruin, will impress the visitor with a much more correct idea of the ancient feudal stronghold. Trim stands upon the borders of what was once considered the 'English Pale,' and lies at an easy distance from Dublin. It

is singularly rich in antiquarian remains, and figured largely in the past history of the English rule in Ireland.

The castle consists of a triangular walled enclosure, defended by circular flanking towers, and a large and lofty donjon or keep in the centre. The north-east side is 171 yards long, and is defended by four towers, viz. two at the angles, and two intermediate. The west side is 116 yards long, and was defended by flanking towers at the angles, and a gateway tower in the centre. The portcullis groove is very perfect; and it seems, from the projecting masonry, that there had been a drawbridge and barbican to the gate. The third side sweeps round at an easy curve to the Boyne; it is 192 yards long, defended by six flanking towers, including those at the angles and at the gate. The gate tower is circular and is in good preservation, as well as are the arches over the ditch, and the barbican beyond it. The gate had also its portcullis, the groove for which, and the recess for its windlass, are perfect. The entire circuit of the castle wall, then, is 486 yards, defended by ten flanking towers, at nearly equal distances, including those at the gates. The donjon is a rectangular building, the plan of which may be thus described: on the middle of each side of 64 feet rectangles are constructed, the sides perpendicular to the square being 20 feet, and those parallel to it 24 feet: thus a figure of twenty sides is constructed. The thickness of the walls of the large tower is 12 feet, and of the smaller towers from 4 feet 6 inches to 6 feet. The walls were carried up 60 feet above the level of the ground, but on

each angle of the large tower, square turrets, 16 feet 6 inches in height, are built. By this arrangement, a large shower of missiles might have been projected in any direction.*

A castle, which there is every reason to believe occupied the site of the present structure, was erected by Walter de Lacy in 1173, who had obtained from Henry II. a grant of Meath. During the absence of de Lacy, while the castle was in the custody of Hugh Tyrrell, it was attacked and demolished by Roderick O'Conor, King of Connaught. In Hanmer's *Chronicle of Ireland*, the circumstances of its erection are thus given: 'Anno 1220. Meath was wonderfully afflicted and wasted by reason of the private quarrels and civil warres between William, Earl Marshall, Earle of Pembroke, &c., and Sir Hugh de Lacy, Earle of Ulster and Lord of Connaught. Trimme was besieged and brought to a lamentable plight, and when the rage and fury of these garboiles were somewhat mitigated and appeased, after the shedding of much blood, the same year, to prevent afterclaps and subsequent calamities, the castle of Trim was builded.'

Maynooth Castle.—The once great castle of Maynooth, erected in 1176 by Maurice FitzGerald, who came over with Strongbow, can be easily visited from Dublin. It is a fine example of the kind of structure which combined the baronial residence with the military fortress. The keep is of the original Norman work. The ground-floor, like that of Athenry Castle,

* See *Some Notices of the Castle of Trim* by the late Rev. R. Butler.

and others of the same period, is divided into two large vaulted apartments, over which were state rooms of fine proportions. Bedrooms of various sizes occupied the upper portion of the tower. The servants and members of the household were accommodated in buildings stretching between the barbican of the outworks and a strong flanking tower which still remains. It is stated in Holinshed's account of the sack of this Geraldine stronghold by Sir William Skeffington in 1553, as the result of Silken Thomas' Rebellion, that 'great and riche was the spoile, such store of beddes, so many goodly hangings, so riche a wardrob, such brave furniture, as truly it was accompted for householde stuffe and vtensils one of the richest Earle his homes under the crowne of Englande.' It was again restored, and finally dismantled by the Irish troops of Owen Roe O'Neill in 1647.

It seems to have taken a considerable period to reconcile the native Irish to the use of castles or tower houses as places of every-day abode. The free-roving Celt could ill brook the confinement of narrow vaults and stifling chambers. To him, as a chieftain actually declared, 'a castle of bones was every way preferable to a castle of stones.' By this was meant that the head of a clan, surrounded by his following of hardy kerns and gallowglasses, was safer and every way better off than an effeminate sojourner between the four walls of a tower. A time at length arrived when the native potentates, petty chieftains, and gentlemen of lesser degree, followed the example of their invaders, and erected stone dwellings, very similar to those of

the strangers with which they had become familiarised. These almost invariably consist of a tall quadrangular tower, with or without outworks, but generally furnished with a bawn or enclosure into which at night, or during raiding times, the owner's cattle were driven.

The apartment on the ground-floor was almost invariably covered with a vault of stone, evidently a precaution against fire. In some instances all the flooring was supported on pointed or barrel arches of stone; but, generally, the upper storeys were provided with floors of timber. A staircase of stone usually led to the upper apartments; sometimes it ran straight through the thickness of the wall from floor to floor, access to the various apartments being provided by narrow doorways, with pointed, flat, or semicircular heads. These three forms are not unfrequently found in the one building. Sometimes the staircase is enclosed in a projecting tower, and rises spiral fashion, with doorways at one side like those already referred to. A second staircase leading to small apartments, which may have been used as bedrooms, is often to be noticed.

'The entrance to an Irish house, castle, or tower,' writes the late J. H. Parker, 'is usually protected in a manner unknown in England—at least not commonly known—for there are a few instances of a similar arrangement in England. There is no external porch, but the doorway opens into a small space, about 6 feet square and about 8 or 10 feet high; in front is the door to the cellar; on the right is the door to a small guard-chamber; on the left the door to the staircase; each

of these doors is barred on the other side, so that the visitor can proceed no further without permission, and immediately over his head is a small square or round hole, emphatically called a "murthering hole"; this opens into a small chamber in which a pile of paving stones was kept ready for use, so that if an enemy had forced the outer door, he would not be much the forwarder. These precautions were evidently taken to guard against any sudden surprise.' But in the Irish tower-houses there was another provision for security. The outer doorway was frequently furnished with a portcullis, so that an unwelcome visitor upon entering the space referred to by the great authority on the domestic architecture of the Middle Ages, with the doors in front and at the sides fastened, the 'murthering hole' above his head, and the portcullis grate dropped behind him, would be securely entrapped. A small projecting bartizan or machicolation set in the top of the tower, is usually found surmounting the doorway on the exterior. Similar turrets occasionally protect angles of the building, by means of which any foe attempting to dislodge the coign stones might be easily crushed. A large, and often handsomely-constructed, fireplace is generally found in the principal apartment. The chimney-shafts, as a rule, are quadrangular. Curiously enough, the kitchen is usually placed outside the building. In a good many examples well-constructed 'garderobes,' or closets, occur.

The windows, which, it should be observed, are commonly very small, splay internally, and are usually placed slightly above the level of the floor, from which

they are approached by a few steps. There is generally a stone seat within the splay, upon each side of the light. This remark, of course, only refers to the principal windows.

The castle of Scurloughstown, which stood in the immediate vicinity of Trim, was probably as good an example as any which have remained to our own day of the lesser keep, usually found in those districts wherein

Scurloughstown Castle.

the earlier colonies of the English or Anglo-Normans obtained footing. It no longer exists. The above sketch was made a few years before the tower, which upon one of its sides exhibited a crack extending from summit to foundation, fell to the ground.

The castle of Bullock, standing immediately above the little harbour of the same name, not far from

the Dalkey station of the Dublin, Wicklow, and Wexford Railway, is worth a visit. It has been very carefully restored, and is now used as a residence. The castle of Dalkey is used as a town hall.

Of the origin of these very interesting structures, no notice, as far as we could ascertain, has been preserved. It is extremely probable that they were erected

Bullock Castle, near Kingstown, Co. Dublin.

by English settlers, not long after the Anglo-Norman invasion of Ireland—their architectural features indicating an early period; and similar buildings, connected together by a wall enclosing a very considerable space, occur in several localities known to have been occupied by the early English.

We may here also mention the picturesque and well-preserved castle of Drimnagh, lying at a distance of about four miles from Dublin, on the road to Crumlin. Its bawn is still perfect, and the ancient fosse, by which the whole was enclosed, remains in

fine preservation, and is still deep. Drimnagh was considered a place of considerable strength during the rising of 1641, and it appears to have been strengthened, and in a great measure re-edified, about that unhappy period of Ireland's history.

In Swords are the dilapidated remains of what was once a fine mediæval castle and bawn, which belonged to the Archbishops of Dublin. There are the remains of other castles, small keeps, and castellated mansions in the neighbourhood of Dublin, particularly in the south, which lay open to the predatory incursions of the lawless tribes that once inhabited the Wicklow Mountains.

CHAPTER XVII.

TOWN GATES AND WALLS: BRIDGES.

DROGHEDA GATES — 'SHEEP' GATE, TRIM — WALLS OF ATHENRY — KILMALLOCK WALLS — WALLS OF LONDONDERRY — BRIDGES — KILLALOE BRIDGE — OLD THOMOND BRIDGE — NEWBRIDGE.

ALTHOUGH it is certain that the Danes, at an early period, encompassed with ramparts and towers several of the cities and towns which they held in Ireland, their works have long disappeared, with the exception of Reginald's Tower, Waterford, built in 1003. Though the walls and gates of a few ancient cities or towns remain, they are obviously of comparatively late date, and invariably found in connexion with places which we know to have been strongholds of the English. In some, as at Drogheda and at Athlone, the wall was of considerable height and thickness. That of Waterford, of which a portion remains, was strengthened with semicircular towers; but they are usually plain. The great majority of these works at present remaining in Ireland were spared as relics, for since the general introduction of cannon and gunpowder for siege purposes they could no longer be relied upon as fortifications. The walls of all the Anglo-Irish cities and towns, which were once remarkable for strength, and the security they afforded

to the besieged, have been almost entirely destroyed. Several gates and towers, however, remain, and of these the finest may be seen at Drogheda.

St. Laurence's Gate consists of two lofty circular towers, connected together by a wall, in the lower portion of which an archway is placed. The towers, as well

St. Laurence's Gate, Drogheda.

as the wall by which they are connected, are pierced with numerous loop-holes; and it is probable that the latter was originally, upon the town side, divided into stages by platforms of timber, extending from tower to tower, otherwise the loop-holes could not have been used by the defenders of the gate; and we know that even in their most beautiful buildings, the ancient architects rarely added an unnecessary feature. The other remaining gate-tower of Drogheda is octangular in form,

pierced with long, narrow loopholes, wider in the centre than in the other parts, and was further strengthened by a portcullis, the groove for which remains nearly perfect. Since the period of Cromwell's 'crowning mercy,' the successful storming of Drogheda, the walls of that place have been gradually sinking into utter ruin; but, from some portions which yet remain in a

The West Gate, Drogheda.

tolerably perfect state, an idea may be formed of their ancient strength and grandeur. Most of the gate-towers remaining in Ireland are square, and of considerable height. Their archways are generally semicircular; but there was a beautiful Pointed example at Ross, in the County of Wexford.

The tower by which the 'Sheep' Gate of Trim was once surmounted no longer exists. The adjacent wall seems to have suffered a like denudation. A lofty structure

figured in the distance, the belfry of St. Mary's Abbey,* is of a late period of Gothic architecture.

Portions yet remain of the walls and flanking towers of Athenry, in the County Galway; but they are much

The 'Sheep' Gate and Yellow Steeple, Trim, Co. Meath.

dilapidated. One of the gateways still stands, through which the road entering the town now runs. It was originally defended by two towers, one of which has fallen; but the other has been preserved by the insertion of an archway spanning the road. In recent times it

* Mr. Butler, in his book on the Castle of Trim, remarks that in 1449–50 Richard, Duke of York, held his Court there; that he was a benefactor to St. Mary's Abbey; and that the 'Yellow Steeple,' as the tower is popularly styled, may probably be assigned to his time.

was with difficulty saved from destruction, a road contractor desiring to have it for the sake of the material; and that in one of the stoniest districts in Ireland. Concerning this structure there was a tradition amongst the neighbouring people that it was some time or other to fall upon the wisest man in Ireland. But the selfish official who coveted the stones seems to have had no fear on that account for his personal safety when passing beneath the arch, and, in reply to a gentleman who strongly objected to the proposed removal of the tower, on account of its interesting antiquity, he is said to have scouted the idea, declaring that any antiquity it ever possessed had gone long ago!

Kilmallock retains two of its four gates and much of its walls, which are in a fair state of preservation, and date from the reign of Edward III. These gates were very strong, and in times of need might have served as castles. In Clonmel the west gate is the only one now standing of four, and the remains of the walls surround the churchyard. Of the walls and gateways of Galway but a few pieces stand. These dated from 1270, and as late as 1651 the walls were perfect, with fourteen towers and as many gateways. Little of the four gates and walls which surrounded New Ross now remain; but one of the towers defending the wall still stands.

The walls of Londonderry, the most perfect in Ireland, are comparatively recent—they were raised in 1609—and have now seven gates. The walls and towers of Limerick were of very early date, and King John's Castle is one of the finest Norman fortresses in the kingdom. The north tower is the most ancient; and it

still possesses the original gateway. Since 1760, when the walls and ramparts were abandoned as defences, they have been allowed to decay, and much of them were removed for public convenience. A fine gateway may also be seen at Carrickfergus Castle, showing all the usual defensive appliances, portcullis, embrasures, and openings for dropping missiles or molten lead. The keep is also perfect, and has walls 9 feet thick.

The citizens of Dublin, generally, are not aware that patches of their old walls, including one gate or bar, still remain. The gateway is called St. Audoen's Arch, and may be seen close to the ancient church of the same name. It is a fragment of an inner wall built by the citizens during the invasion of Ireland by Edward Bruce, at a time when he lay encamped at Castleknock, and daily threatened the city. The adjoining portion of the wall is here high and strong; but the gate-tower has been lowered almost down to its arch.

Of the structure whose origin is ascribed to Meyler Fitz Henry, but completed by Archbishop Henry de Loundres, A.D. 1223, a portion may possibly be concealed beneath the piles of modern edifices which represent the present Castle of Dublin. The Castle presents little that is of interest to the architectural antiquary, except he finds it in the massive walls of the Record Tower, the oldest portion of the group of buildings between the Castle yards.

Bridges.—That the Irish at an early period were in the habit of constructing bridges and causeways over

rivers, or from the mainland to an island, or from one island to another, is a fact recorded in the 'Annals'; and we are not wholly without some existing remains of that interesting class of structures. We read that in A.D. 1054 a bridge was built over the Shannon, at Killaloe, by Turlogh O'Brien. This work was no doubt of timber. It had probably been long decayed or destroyed when Richard de Clare obtained possession of the greater part of that county which still bears his name. But the ford was not so easily obliterated, and Killaloe was for a considerable time called 'Claresford' by the English. The little island of Begerin, near Wexford, was formerly connected with another island by a causeway, described by Mr. G. H. Kinahan as consisting of two rows of oak piles, set four feet apart, with about five feet between each pair. 'On these piles,' he remarks, 'there would seem to have originally been longitudinal and transverse beams.'* St. Ibar, who died in A.D. 500, had a church and monastery in Begerin, so that there is every probability that this bridge or causeway may be referred to a very early date. The islands of Devenish and Inismacsaint, in Lough Erne, both of which were monastic sites in the sixth century, had similar communications with the mainland. A number of the piles at the latter island may still be seen when the water is low. Many of the lake-dwellings, or crannogs, were, as we have seen, furnished with causeways connecting them with the mainland, or with neighbouring islets.

Few, if any, bridges formed of stone appear to have

* *Journal* Roy. Soc. of Antiq. Ir., 1872-3, p. 435.

been erected in Ireland previous to the Anglo-Norman invasion; but the new settlers and their descendants constructed many, several of which remained down to a comparatively late period. Of these, perhaps old Thomond Bridge, which spanned the Shannon at Limerick, was the most remarkable. Low, flat, and narrow in its proportions, defended at one end by a tower and gateway, and exhibiting in its fifteen arches a variety of forms, chiefly Pointed, it constituted, with the castle, and the venerable tower of St. Mary's Abbey in the background, one of a group of mediæval structures as imposing as they were picturesque. The bridge was, in all probability, coeval with King John's Castle immediately adjoining. Having at length, in part, become ruinous, it was, in the past century, pulled down, and a structure more in accordance with the requirements of the nineteenth century occupies its historic site.

The Shannon, almost in our own time, was crossed by other bridges of considerable antiquity. That at Athlone was one of the most interesting and picturesque features of the old town. In its abutments were recesses intended for the refuge of foot-passengers whenever any vehicle was passing—a precaution rendered absolutely necessary by the narrow proportions of the ancient roadway. Near the centre, on the northern side, might be seen a very remarkable sculptured and inscribed monument; the stones which composed it were placed in the collection of the Royal Irish Academy.

At Newbridge, two miles from Leixlip, and crossing the Liffey, is perhaps the oldest bridge now remaining

in Ireland. This ancient structure, which still remains apparently as strong as when it was built, was, according to *Pembridge's Annals*, as published by Camden, erected in 1308, by John le Decer, Mayor of Dublin in that year. It is in every respect an interesting work of its kind, and promises, unless taken in hand by some 'restorer,' to stand the storms and floods of another five hundred years. Some sixty years ago it was sentenced to destruction as useless, and only escaped demolition through the influence of the then proprietor of St. Woolstan's, Richard Cane, who, in a spirit worthy of all commendation, declared that he would rather bear the cost of a new bridge than see one stone of John le Decer's work removed.

INDEX

N.B.—The Titles of Books, etc., are in *Italics*.

Abbeys, 362.
  Bective, 368.
  Dunbrody, 365.
  Howth, 375.
  Jerpoint, 364.
  Kilmallock, Window of, 365.
  Malahide, 386.
  Newtowntrim, 367.
Achill Island, 77.
Adams, Professor Leith, 188.
Adler, Professor, 104.
Aghade, 16.
Alignments, 127.
Allen, Hill of, 171.
Alphabet stone, Kilmalkedar, 22.
Ancient Bronze Implements of Great Britain, 212.
Ancient Stone Implements, 196.
Anderson, Dr. Joseph, 120.
Anglo-Irish Remains, 3.
Annals of Clonmacnoise, 165, 241, 306.
Annals of the Four Masters, 82, 100, 140, 241, 349, 352.
Annals of Innisfallen, 354.
Annals of Tighernach, 101.
Aranmore, 173.
Arch Druid, 72.
Archæologia, 89, 205, 250, 257.
Archæological Journal, 332.
Ardagh Chalice, or Cup, 357.
Ardakillen Crannog, 231, 239.
Ardnaree, 60.
Ardoileán, 285.
Aristotle, 122.
Arrow-heads, Flint, 191.
  Leaf-shaped, 191.
  Triangular, 193.
  Stemmed, 193.
  Mounted, 194.
  Bronze, 227.
Art, Early Christian, 345.
Asiatic Researches, 15.
Athenæum, 243.
Aynia's Cove, 76.

Ballon Hill, 134.
Ballyconnell, Stone Monument at, 42.
Ballyheabought, 177.
Ballykinvarga, 172.
Ballynasare, 26.
Balor of the 'Mighty Blows,' 43.
Banqueting-Hall of Tara, 168.
Barr of Fintona, 61, 113.
Barrows, 121.
Bateman, Mr., 133.
Battle of Sligo, 139.
Battler, The, 351.
'Beds' of Dermot and Grainne, 51.
Bee-hive Huts. (*See* Clochauns.)
Begerin, 402.
Bells, Ecclesiastical, 346.
  Chumascach, 348.
  St. Patrick's, or Armagh, 346.
Beranger, Gabriel, 72.
Bernard, Dr., 184.
Bernard, Dr. J. H., 351.
Betham, Sir Wm., 349, 350
Bishop's Island, 284.

Board of Public Works, 181, 258, 303, 341.
Book of Armagh, 50.
Ballymote, 142, 150, 152, 155.
Kells, 306, 351.
Lecan, 140.
Leinster, 150.
Rights, 234, 240.
Borlase, C. W., 52, 54, 55, 58, 70, 71, 75.
Brash, R. R., 35, 38, 152, 242.
Breac Moedoc, The, 352.
Breagho, Stones at, 130.
Brehon's Chair, 42, 72.
Brian Boru, 184, 30, 309.
Bridges, 401.
Athlone, 403.
Killaloe, 402.
Newbridge, 403.
Thomond, Limerick, 403.
British Archaic Sculpturings, 35.
Bronze Age, 49, 66, 76, 90, 98, 105, 134, 202.
Bronze, Discovery of, 204.
Armlets, 240.
Arrow-heads, 227.
Bridle-bits, 229.
Caldrons, 233.
Celts, 206.
'Dowris,' 234
Fibulæ, 238.
'Head-stalls,' 232.
Irish, Analysis of, 205.
Mycenæan, Analysis of, 205.
Ornaments, 237.
Penannular Rings, 239, 248.
Rapiers, 216.
Ring Pins, 238.
Shields, 227.
Spears, 222.
Swords, 213.
Sword-sheaths, 219.
Trumpets, 235.
Bruce, Edward, 401.
Brugh na Boinne, 81.
Budge, Dr., 206.
Buick, Rev. Dr., 267.
Bulleid, Mr. Arthur, 266.
Bulláns, 43.
Clane, 46.
Dowth, 45.
Garranbane, 45.
Kill o' the Grange, 46.
Bulláns at—
Lough Macnean, Upper, 47.
Meelehans, 46.
Newgrange, 45.
Slieve-na-Calliaghe, 45.
Standing stone, 45.
Templenaffrin, 46.
Burial Customs, 49, 132.
Remains, Exploration of, 133.
Butler, Rev. R., 399.

Cahers, 171.
Caher Fada an Doruis, 178.
Cahernamactirech, 178.
Cairbre Lifeachair, 151.
Cairns, 49, 98, 112.
Horned, 120.
Cairns at—
Barr of Fintona, 113.
Belvoir, 113.
Bighy, 116.
Cairn's Hill, 112.
Doohat, 118.
Knocknarea, 112.
Loughcrew, 98.
Calliagh Vera or Birra, 58, 99.
Camden, 3.
Cane, Richard, 404.
Cannistown Church, 370.
Canoes or 'Dug-Outs,' 274.
Carnac, 127.
Carnbawn, 98.
Carrowmore, Stone Monuments at, 75.
Burials at, 135.
Cashels, 171.
Castellated Mansions, 390.
Castles, Anglo-Norman, 383.
Bullock, 393.
Carrickfergus, 401.
Dalkey, 394.
Drimnagh, 394.
Dublin, 401.
King John's, Limerick, 400.
Malahide, 385.
Maynooth, 389.
Scurloughstown, 393.
Swords, 394.
Castlerock, 189.
Catalogue of Antiquities, Royal Irish Academy, 111, 194, 203, 210, 219, 234, 257, 274.
of Gold, Roy. Ir. Acad., 242.

Cathach, or Caah, 349.
Cathair Crofinn, 167.
Cat-stone, 5.
Celleach, Bishop, 59.
Celtic Church, The, 286.
Celts, *see* Bronze, Copper, Stone.
Chair of the Tyrone O'Neills, 39.
Chalices, 356.
    Ardagh, 357.
Chamber Monument, 51.
Christchurch, 366.
Christian Inscriptions (G. Petrie), 319.
Churches, Early, 289.
    Belfries, 292.
    Doorways, 289.
    Choir Arches, 291.
    Masonry of, 292.
    Roofs, 292.
    Windows, 290.
    Friar's Island, 304.
    Glendalough, 297.
    Killiney, 293.
    Kilmurvey, 290.
    Kilternan, 293.
    St. Colman's, Kilmacduagh, 290.
    St. Fechin of Fore, 290.
    St. Flannan's, Killaloe, 307.
Churches, Early Decorated, 308.
    Aghadoe, 318.
    Clonfert, 318.
    Cormac's Chapel, 313.
    Devorgilla's, Clonmacnoise, 318.
    Freshford, 316.
    Iniscaltra, 309.
    Killeshin, 310.
    Rahan, 311.
    Tuam Cathedral, 318.
Churches, Early Pointed, 365.
    Later, 362.
Cinerary urns, 49, 143.
Cistercian Order, Abbeys of, 363.
Cists, 49.
    Greenhills, 66.
    National Museum, 66.
    Phœnix Park, 63, 65.
Civilisation of Sweden in Heathen Times, 137.
Clady Church, 370.
Clocha Labartha, 7.
Clochauns, 172, 279.
    Dingle, 177.
    Fahan, 178.
Clochauns at—
    Inismurray, 182.
    Skellig Michael, 280.
Cloch-bhreach, 19.
Cloch-i-neely, 43.
Cloch-lia, 19.
Cloch-na-n'Arm, 79.
Cloghafoyle, 13.
Cloictheach, 334.
Clontarf, 121.
Cochrane, Mr. Robert, 250.
Coffey, Mr. George, 90, 93, 105, 204, 223.
Coire an Daghda, 233.
Conal Cearnach, 46.
Conchobar, 101.
Conquer Hill, 121.
Conwell, E. A., 7, 39, 99, 101, 103.
Copper Age, 202.
    Arrow-heads, 227.
    Celts, 303.
    in Ireland, 204.
Cormac Mac Art, 51, 168, 171.
Cormac Mc Carthy, 313.
Coronation Stone, 9.
Crannogs, 252. (*See* Lake-Dwellings.)
    Ballinamore, 268.
    Ballyconnell, 268.
    Clones, 267.
    Lagore, 254.
    Lisnacroghera, 263.
    Loughavilly, 270.
    Lough Eyes, 264.
    Lough Faughan, 253.
    Lough Gur, 258.
    Lough Roughan, 257.
    Miracles, the, 270.
    Monaghan, 258.
    Moylarg, 267.
    Roscrea, 245.
    Scotch, 265.
    Strokestown, 268.
    Stone, 268.
    Submarine, 268.
Crannog Huts at Drumkellin, 271.
    Kilnamaddo, 271.
Crannog Pottery, 272.
    Spears, 226.
Cremation, 136.
Cromlechs, 49.
    Ballyedmond, 73.
    Ballymascanlan, 55, 62.
    Black Lion, 60.

Cromlechs at—
Brennanstown (Glen Druid), 71.
Castlederg, 77.
Cloghtogh, 76.
Four Maols, the, 59.
Glencullen, 73.
Glensouthwell, 72.
Greenmount, 59.
Howth, 66.
Kernanstown, 57.
Kilternan, 74.
Knockmany, 74.
Labacallee, 58.
Legananny, 61.
Lennan, 77.
Monasterboice, 58.
Mount Venus, 60.
Shanganagh, 71.
Shankill, 74.
Slievemore, 77.
Crosiers, 352.
Cashel, 353.
Lismore, 354.
St. Berach, 353.
Cross of Cong, 354.
Crosses, Early Irish, 319.
Clonmacnoise, 319, 321.
Finglas, 320.
Kells, 321.
Monasterboice, 323.
Tully, 320.
Crotals, 234.
Cruachan, 13.
Cruck-na-Clia, 77.
Cup-and-Circle Markings, 23.
Cumdachs, 349.
Book of Dimma, 349.
Book of Mulling, 349
St. Columba's Psalter, 349.
Stowe Missal, 349.
Currachs, 276.

Dalkey Church, 371.
Dallans, 5.
D'Alton, J., 375.
D'Arcy, Dr. S. A., 267.
Dathi, 13, 81.
Day, Mr. Robert, 30.
De Courcy, John, 383.
Deer-stone, Glendalough, 46.
De Lacy, Hugh, 383.
Walter, 389.
Denmark, King of, 55.
Dermot Mac Murrough, 298.
Dermot, son of Fergus, 165.
Devenish, 344, 402.
Dextera Dei, or Hand Symbol, 329.
Diarmid O'Duibhne, 51.
Dolmens, 51.
Dolmens of Ireland, 53, 58.
Domnach Airgid, 351.
Domnall of Kells, 351.
Donagh O'Brien, 313.
Doon Cave, 164.
Dorban, 80.
Dowris, 234.
Dowth, 45, 48, 91.
Carvings at, 95.
Entrance to, 94.
Drew, Sir Thomas, 366.
Druid's Altar, 52.
Chairs, 38, 72.
Judgment Seat, 40.
Temple, 125.
Drumnakilly, 45, 146.
Duald Mac Firbis, 13.
Dubh Caner, 172, 176.
Du Chaillu, M., 120.
Dumha na nGiall, 168.
Dunraven, Lord, 335, 357, 359.
Duns, 159, 161.
Aengus, 172, 176.
Aillinne, 171.
Conor, 176.
Dorsay, 161.
Eochla, 176.
Onaght, 176.
Dunamoe, 172, 180.
Dunbeg, 172, 178.
Dundrum, Co. Down, 189.
Du Noyer, George, 30, 52, 58, 70, 100, 177, 189.
Dunsinane, Hill, 163.
Durer, Albert, Altar Piece by, 386.
Dysart, 135.

Early Age of Greece, 138, 139.
Early Christian Remains classified, 2.
Early Metallurgy of Copper, Tin, and Iron in Europe, 205.
Ecclesiastical Architecture (G. Petrie), 14, 80, 183, 301, 309, 312.
Eglone, 12.
Egyptian Decorative Art, 105.

Egyptian Monoliths, 56.
Egypt under the Great Pyramid-Builders, 206.
Eirde Houses, 163.
Emania, or Navan Fort, 169.
Eoghan Bel, 59, 139.
Evans, Mr. Arthur, 104, 249.
Evans, Sir John, 195, 223, 229.
Excursions through Ireland, 74.

Fahan, 'Ancient City of,' 178.
Falkiner, Rev. W., 164.
Feidlimidh Reachtmhar, 76.
Feis Teamhair, 165.
Fergus Mac Earc, 9.
Ferguson, Sir Samuel, 77, 78.
Fergusson, James, 16, 53, 61, 100, 109, 110.
Fiachra, 142.
Fingal, 375.
Fingal and its Churches, 375.
Fin Mac Coul, 51, 68, 168, 171.
FitzGerald, Lord Walter, 20.
Flaking Tools, or Fabricators, 195.
Fleatuch, 12.
Flint, 189.
  Arrow-heads, 190.
  Cores, 189.
  Knives, 194.
  Spear-heads, 191.
Florencecourt, 117.
Fonts, 378.
  Christchurch, 382.
  Clonard, 381.
  Dunsany, 382.
  Kilcarn, 379.
  Kilkenny Castle, 379.
  Killeshin, 379.
  Killiney, 378.
  Kilternan, 378.
  St. John's Point, 379.
Food-vessels in Graves, 147.
Forradh, 8, 167.
Fothach Rath Grainne, 168.
Fothadh Airgthech, 150.
Franks, Sir A. W., 221, 222.
Frazer, Dr. W., 35, 100.

Gallauns, 5.
Gentleman's Magazine, 38.
Giants' Graves, 51, 63.
Giant's Load, 62.
Glasgavlen, 43.
Glasinac, 133.
Glastonbury, 266.
Glencolumbkille, 122.
Glen Fahan, 178.
Glenmalin; 110.
Glensouthwell, 42.
Gold in Ireland, 241.
  Fibulæ, 248.
  'Finds,' 243, 249.
  Diadem, or Tiara, 247.
  Lunulæ, or Lunette, 245.
  Ornaments, Varieties of, 242.
  Torques, 243.
Goromna, 268.
Gowland, Mr. W., 205.
Grainger, Rev. Canon, 263.
  Collection, 143, 226, 234.
Grainne, 51, 168.
Grain-rubber, 44.
Graves, Bishop, 24, 25, 26, 27, 152, 153, 157.
Graves, Early Christian, 331.
  Kilnasaggart, 331.
  St. John's Point, 331.
  Town-y-Chapel, 332.
Graves, Rev. James, 10.
Graves, Triangular, 120.
Greenwell, Rev. Canon, 227.
Guaire, King, 59.
Guide to Lough Corrib, 121.

Hag's Castle, 268.
  Chair, 39, 102.
Hallstatt, 134, 222.
Hatshepsut, Queen, Obelisk by, 56.
Hibernia (Camden), 3.
Hill of Executions, 60.
  Rath, 136.
Hissarlik, 205.
Holed-stones, 14.
  Aghadoe, 16.
  Ardmore, 16.
  Castledermot, 20.
  Cuil-Irra, 19.
  Cushendall, 19.
  Doagh, 19.
  Inniskeen, 19.
  Inismurray, 21.
  Kilmalkedar, 16.
  Mainistir, 20.
Hore Abbey, 313.

Horæ Ferales, 219, 220.
Howth Collegiate Church, 375.
Lord, Tomb of, 376.
Hugh O'Neill, 39.
Hy Fiachrach, 59.
Hyndford Crannog, 266.

Inauguration Stones, 38.
Incense Cups, 148.
Inis Cathaigh, 284.
Inishmaan, 176.
Inishmore, 176.
Inis-Mac-Nessan, 378.
Inismacsaint, 402.
Inismurray, 173, 181, 286.
Interments, Primitive, 49.
Ireland's Eye, 377.
Irish Antiquarian Remains, Classified, 2.
Irish Antiquarian Researches, 349.
Irish Names of Places, 159.
Irish-Romanesque Work, 309.
Iron, 206.
Age, Early, 222.
Caldrons, 234.

Journal, Roy. Soc. of Antiq., Ir., 16, 20, 35, 44, 46, 47, 60, 76, 77, 106, 110, 116, 136, 161, 163, 165, 174, 179, 194, 219, 234, 242, 250, 267, 268, 332, 402.
Journal of Hellenic Studies, 105.
Joyce, Dr. P. W., 159, 160, 161.
Journal of the Anthropological Institute, 204.

Karnak, Obelisks, 56.
Keller, Dr., 256, 264.
Kelly, Dr. Dillon, 135.
Killee, Stones at, 130.
Kilmacnessan, 378.
Kinahan, Mr. G. H., 11, 30, 44, 188, 402.
King Cormac's Chapel, 362.
Kistvaens, 49.
Knoc Baine, 76.
Knockaulin, Hill of, 171.

Lacknacor, Flagstone at, 42.
Lagore Crannog, 94, 231, 254.
Lake-dwellings, 263. (*See* Crannogs.)
Area of Distribution, 264.
England, 266.
Scotland, 265.
Switzerland, 263.
Lake-Dwellings (Dr. Keller), 256.
Lake-Dwellings of Europe (Dr. Munro), 259, 271.
Lake Dwellings of Ireland (Col. Wood-Martin), 231, 263, 269.
Lake Stone-dwellings, 268.
Laoghaire, King, 50, 140.
Larne Implements, 196.
Late Celtic Art, 221.
La Tène Period, 222.
Layard, Mr., 268.
Leaba Diarmida agus Grainne, 51.
Leabhar na h-Uidhre, 80, 150.
Leacht Con Mic Ruis, 108.
Leaghauns, 8.
Lebour, M. G. A., 53.
Le Decer, John, 404.
Letroy, General, 59.
Legamaddy. (*See* Stone Circles.)
Lett, Rev. Canon, 161.
Lettered Cave, 31.
Lhwyd, Edward, 82, 97.
Lia Fail, 8, 168.
Lia Lamha Laich, 199.
Life of St. Patrick, 6.
Lis or Lios, 159.
Lisnacroghera, 219, 226, 234, 263.
Loch Dowalton Crannog, 265.
Dughaill Crannog, 266.
Lochlee Crannog, 265.
Locmariaker, 89.
Loughcrew, 39, 58, 98.
Lough Ballinafad, 268.
Bola, 268.
Cam, 268.
Derg, 42.
Mask, 268.
Melvin, 35.
Owel, 275.
Skannive, 268.
Louthiana, 341.
Lynch, Mr. P. J., 174, 179.

Mab, or Maeve, Queen, 112.
Macalister, Mr. Stewart, 179, 180.
Macbeth's Castle, 163.
Mac Cullagh, Professor, 356.
Macha, Queen, 170.
Maelmuiri, 80.
Malachy O'Morgair, 277, 363.
Manners and Customs of the Ancient Irish, 141, 142, 150, 180.

Martyrology of Donegal, 286.
Maxwell, Sir Herbert, 265.
Medune, Tombs of, 205.
Mellifont, 363.
Memphis, Monolith at, 56.
Mesgegra, King, 46.
Metal Work, 345.
Methers, 274.
Milligan, Mr. Seaton, 235.
Miltown, Canoe discovered at, 276.
Min, or Mind, 245.
Minchen Hampton, 16.
Miscaun Maeve, 112.
Molyneux, 97.
Monasteries, Later, 363.
Monastic Settlements, 279.
Inismurray, 286.
Skellig Michael, 280.
Montelius, Professor, 106, 137.
Moryson, Fynes, 39.
Mounds, 121.
Mount Callan, 152.
Mountjoy, Lord, 39.
Moytura, 121.
Mudge, Captain, 256.
Munro, Dr. Robert, 48, 133, 163, 259, 264, 266, 271.
Murray's Handbook for Ireland, 127.
Mycenæ, 90, 104, 105.
Mycenæan Age, The, 91.

Naper, J. L. W., 99.
National Museum, 2, 45, 64, 65, 155, 195, 197, 202, 203, 213, 217, 222, 227, 230, 233, 235, 241, 275, 352, 360.
Nature, 53.
Navan Fort, or Emania, 170.
Neolithic Man in Ireland, 188.
Newgrange, 45, 48.
Tumulus at, 81.
Carvings on stone, 86.

Ober Meilen, 256, 263.
O'Brien, Donough Cairbreach, 184.
Murkertagh, 184.
O'Conor, King Roderick, 354, 389.
O'Curry, Eugene, 73, 141, 150, 180, 199.
Odin, or Wodin, 17.
O'Donovan, John, 167.
Oileán-an-Easpoiggortaig, 285.
Ogam Alphabet, 153.
Characters on other objects, 156.
Ogam Inscribed Monuments of the Gaedhil, 152, 160.
Ogam stones, 150, 152.
Number of, 154.
Ballintaggart, 155.
Ballyknock, 156.
Burnham, 155.
Drumloghan, 156.
Dunloe, 156.
Monataggart, 154.
National Museum, 155.
Parknasilla, 155.
St. Dogmael, 155.
Oldcastle, 39, 58, 98.
Ollamh Fodhla, 39, 101, 103.
Tomb of, 7.
Chair of, 103.
One Man's Cairn, 144.
O'Neill, Henry, 70, 73, 74.
Sir Phelim, 258.
O'Neills, 38, 183.
Oratories, Origin of, 278.
Where situated, 279.
Gallerus, 282.
Kilmalkedar, 283.
Temple Gael, 283.
Ornament, Late Celtic, 221.
Spiral, 104.

Pagan Ireland, 15, 16, 135.
Pairc-na-gclochalabartha, 7.
Palstave, 208.
Parker, J. H., 99, 391.
Patrickstown Hill, 98.
Pembridge's Annals, 404.
Petrie, Dr. Flinders, 104, 105, 202.
Petrie, George, 9, 13, 80, 167, 176, 183, 206, 245, 254, 277, 289, 298, 301, 307, 309, 317, 319, 334.
Pfhalbauten, 264.
Picts' Houses, 163.
Pillar-Stones, 5.
Ballynacraig, 12.
Castlecool, 12.
Finner, 12.
Glenasmole, 12.
Keimaneigh, 13.
Kesh, 11, 79.
Killowen, 79.
Kilmacrennan, 11.
Kilnasaggart, 78, 331.
Muff, 10.

Pillar-Stones at—
Newgrange, 12.
Tara, 8.
Pitt-Rivers, General, 266.
Plunkett, Colonel, 66.
Plunkett, Maud, Tomb of, 386.
Politics (Aristotle), 123.
Portstewart, 189.
Praying Stones, 21.
Prehistoric remains classified, 2.
Prehistoric Scotland, 48, 163, 265.
Primeval Antiquities of Denmark, 136.
Proleek Stone, 62.

Querns, 44.
Quoits, Fin Mac Coul's, 68.

Raised Beaches, 189.
Rameses II., Statue of, 56.
Rambles and Studies in Bosnia-Herzegovina and Dalmatia, 134.
Rathcroghan, 13.
Raths, 159.
Number of, 160.
Caelchon, 168.
Downpatrick, 170.
Grainne, 168.
Gurteen, 163.
Naas, 171.
na Riogh, 168.
na Seannadh, 168.
Tara, 167.
Tullahogue, 39.
Whitechurch, 162.
Red Branch Knights, 170.
Reginald's Tower, 396.
Reilick Odrain, 288.
Rhys, Dr., 154, 157.
Ridgeway, Mr. Wm., 138.
Rock Basins, 43.
Rocking-stones, 36.
Black Lion, 36.
Brown's Bay, 37.
Highwood, 36.
Northern Moytura, 37.
Rock of Cashel, 312.
Rock-Scribings, 23.
Bantry, 30.
Boho, 30.
Broughshane, 30.
Cloverhill, 30.
Gillie's Hole, 33.
Rock Scribings at—
Knockmore, 31.
Lough Blocknet, 31.
Loughnacloyduff, 33.
Mevagh, 30.
Round Towers, 333.
General conclusions regarding, 334.
Doorways, 337.
Windows and Apertures, 338.
Clondalkin, 339.
Devenish, 344.
Kildare, 342.
Lusk, 340.
Monasterboice, 340.
Swords, 340.
Round Towers of Ireland, Origin and Uses of, 334.
Royal Irish Academy, 99, 153, 245, 254, 352, 360.
Collection, 45, 64, 114, 147, 199, 200, 213, 235, 242, 357, 403.
Proceedings, 66, 100, 164, 268.
Transactions, 27, 106, 180, 223, 352.
Royal Residences, Ancient, 165.
Royal Society of Antiquaries, 219.
Journal, 60, 76, 77, 106, 110, 161, 163, 174, 175, 179, 194, 219, 234, 242, 250, 267, 268, 332.
Rude Stone Monuments, Fergusson, 100, 120.
Rude Stone Monuments of Sligo, Col. Wood-Martin, 19, 75, 100, 111, 120.

Samhain, 170.
Scattery Island, 284.
Schliemann, 205, 218.
Schliemann's Excavations, 91, 104, 138.
Schuchhardt, Dr., 91, 104.
Scientific Transactions, Royal Dublin Society, 188.
Senchas-na-Relec, 80.
Shearman, Rev. Francis, 46.
Shirley, Mr., 269.
Shrines, 347. (*See* Cumdachs.)
St. Mura's Bell, 348.
St. Patrick's Bell, 349.
St. Senan's Bell, 347.
Simpson, Sir James, 35.
Skellig Michael, 279.
Slieve-na-Calliaghe, 39, 45, 98.
Sligo, Battle of, 59.
Slope of the Chariots, 230.

Souterrains, 161.
Spenser, Edmund, 38.
St. Audoen's Arch, 401.
St. Brigid's Chair, 42.
St. Caimin, 309.
St. Carthach, 312.
St. Catherine's Pond, 375.
St. Columba, Flagstone of, 42.
House of, Kells, 305.
Life of (Adamnan), 286.
St. Declan, 312.
Day of, 16.
St. Dogmael's, 155.
St. Doulough's Church, 373.
Well, 375.
St. Fechin of Fore, 285.
St. Fintan's Church, 377.
St. Ibar, 402.
St. Kevin, 297.
Bed of, 303.
House or Kitchen of, 300.
St. Kieran, 319.
St. Laurence O'Toole, 303.
St. Macarthen, 351.
St. Mac Dara, Church of, 296.
St. Madron, Well of, 16.
St. Molaise or Laisrén, 286.
St. Molaisi Diamhinsi, 288.
St. Patrick, 5.
St. Patrick's Cathedral, 365.
St. Ruadan of Lorrha, 115.
St. Senan, 284.
Stokes, Dr., 157.
Stone Age, 49, 90, 137, 141, 187.
Axe-hammers, Perforated, 199.
Celts, 195.
Celts in Crannogs, 271.
Stone Circles, 122.
Ballynoe (Ligamaddy), 125.
Carrowmore, 75.
Callernish, 130.
Lough Gur, 126.
Newgrange, 124.
Slieve-na-Greidle, 125.
Wattle Bridge, 125.
Stone of Destiny, 8, 167.
Stone Forts, 159.
Aran Islands, 176.
Caherconree, 174.
Co. Clare, 175.
Dingle, 176.
Fahan, 177.
Stone Forts at—
Grianan of Aileach, 183.
Moghane, 175.
Staigue, 173.
Stone Implements, 187.
Sullivan, Dr., 140, 142.

Tacitus, 137, 162.
Taillten or Teltainn, 81, 100, 171.
Táin-bó-Cuailgne, 150.
Tara, 165.
Brooch, 360.
Raths on, 167.
Teach Cormaic, 168.
Miodchuarta, 168.
Molaise, 287.
Teampull Ceanannach, 292.
Teampull-na-Bfear, 287.
Praying Stones at, 21.
Teampull-na-mBan, 22, 287.
Teampull-na-Teinidh, 288.
Tehuti-hetap, 56.
Tempo, 45.
Ten Years' Digging in Egypt, 205, 206.
Thompson, Dr. Maunde, 351.
Three Rock Mountain, 72, 73.
Timahoe, Doorway of Round Tower, 311.
Tin, 204.
Tiryns, Frieze at, 105.
Tlachtga, Palace of, 170.
Tober Brigid, 47.
Tobernavean, 19.
Todd, Dr. J. H., 6.
Tory Island, 43.
Tower-house, 390.
Town Gates, 396.
Athenry, 398.
'Sheep' Gate, Trim, 398.
St. Laurence's, Drogheda, 397.
West Gate, Drogheda, 398.
Town Walls, 396.
Athenry, 399.
Clonmel, 400.
Galway, 400.
Kilmallock, 400.
Limerick, 400.
Londonderry, 400.
New Ross, 400.
Treasury of Atreus, 90.
Tullakeel, 25.
Tumuli, Chambered, 80.

Tumuli, Chambered, at—
Dowth, 91.
Knowth, 91.
Loughcrew, 98.
Newgrange, 81.

Uley, 84.
Urns, Sepulchral, 143.
Ussher, Mr. R. J., 162, 188.

Valenciennes, M., 35.
Vallancey, General, 152, 333.
Viking Age, 120.
Vitruvius, 104.

Wangen, 265.
Ward, Hill of, 170.
Ware, Sir James, 319.
Weems, 163.
Westropp, Mr. T. J., 175.
Whitepark Bay, 189.
Wilde, Sir William, 93, 96, 121, 209, 210, 217, 219, 222, 236, 237, 242, 244, 246, 252, 254. See *Catalogue of Antiquities*.
Woden, or Odin, 17.
Wood-Martin, Colonel, 14, 16, 19, 24, 50, 60, 75, 110, 120, 135, 231.
Worsaae, 136.

Yellow Steeple, Trim, 399.
Yokes, 232.

THE END.

B.3/9
2/31